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TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1932

No. 517

PUBLIC SERVICE COMMISSION OF WISCONSIN, THEODORE KRONSHAGE, JR., INDIVIDUALLY AND AS A COMMISSIONER OF SAID PUBLIC SERVICE COMMISSION OF WISCONSIN, ET AL.; ETC., APPELLANTS,

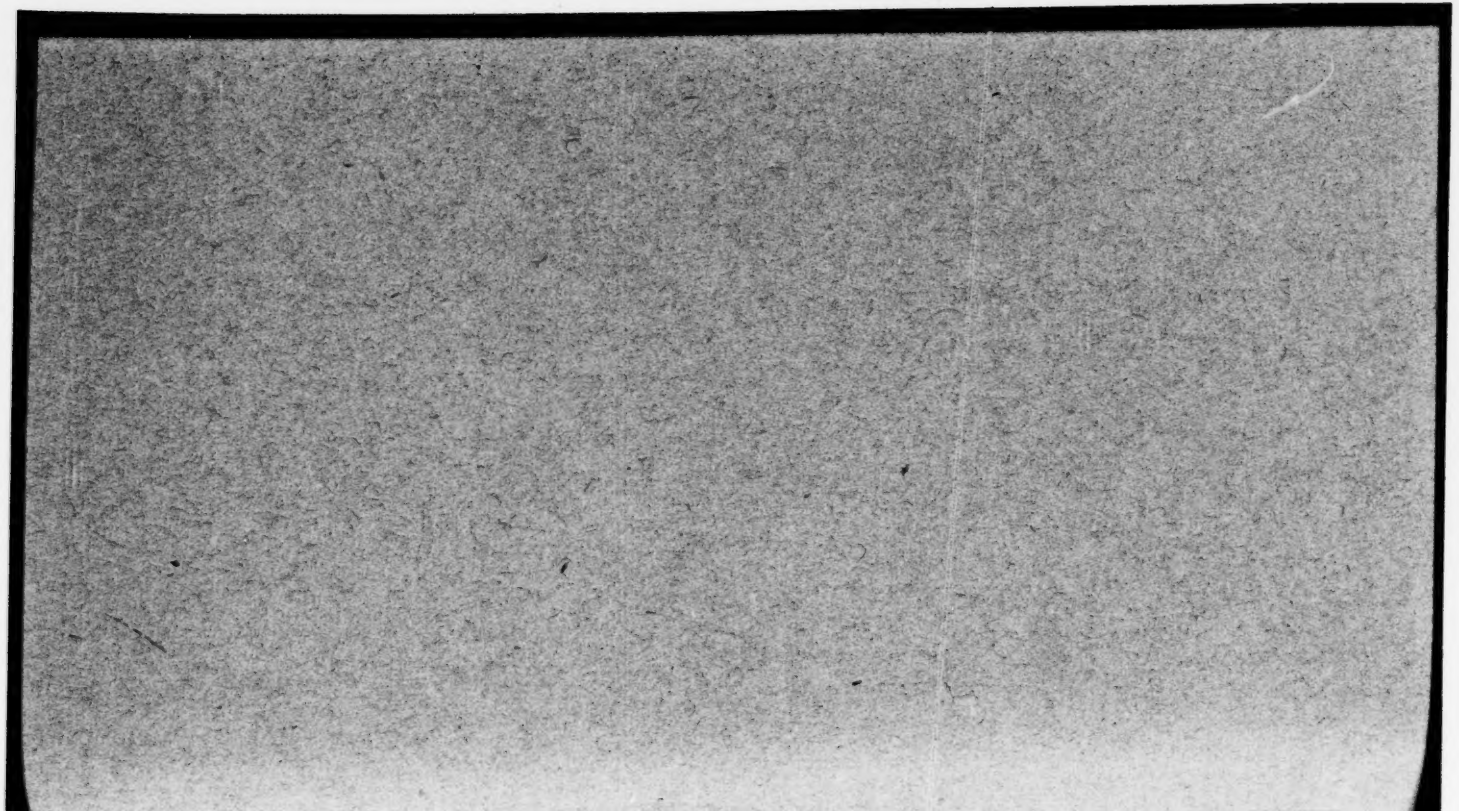
vs.

WISCONSIN TELEPHONE COMPANY

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF WISCONSIN

FILED NOVEMBER 21, 1932

(37,214)



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[fol. 1]

IN UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WISCONSIN

Equity. 2118

WISCONSIN TELEPHONE COMPANY, a Wisconsin Corporation, Complainant,

vs.

PUBLIC SERVICE COMMISSION OF WISCONSIN, THEODORE KRONSHAGE, JR., Individually and as a Commissioner of said Public Service Commission of Wisconsin; A. R. McDonald, Individually and as a Commissioner of said Public Service Commission of Wisconsin; David E. Lilienthal, Individually and as a Commissioner of said Public Service Commission of Wisconsin; William M. Dinneen, Individually and as Secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, Individually and as the Attorney General of Wisconsin, Defendants

BILL OF COMPLAINT—Filed July 28, 1932

To the Honorable Judges of the District Court of the United States for the Western District of Wisconsin:

Wisconsin Telephone Company brings this its bill of complaint against Public Service Commission of Wisconsin, Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin, A. R. McDonald, individually and as a Commissioner of said Public Service Commission, David E. Lilienthal, individ-
[fol. 2] ually and as a Commissioner of said Public Service Commission of Wisconsin, William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, and complains and alleges that:

1. The complainant, Wisconsin Telephone Company, (hereinafter sometimes referred to as "the Telephone

Company'' or ''the Company'') is and was during all of the times herein mentioned a corporation existing under and by virtue of the laws of the State of Wisconsin and organized to furnish telephone service, and owns and operates and during all of the times herein referred to has owned and operated a telephone system in the State of Wisconsin and to a limited extent in the City of South Beloit and the Township of Rockton in the County of Winnebago in the State of Illinois and in the County of Washington in the State of Minnesota, including plant and equipment for the conveyance of telephone messages, and furnishes and furnished to its subscribers and patrons telephone exchange service and both intrastate and interstate toll service. The complainant is subject to the jurisdiction of the Interstate Commerce Commission under the Act of Congress entitled ''The Act to Regulate Commerce June 4, 1887,'' and amendments thereto, and is a common carrier as therein defined.

2. The defendant, Public Service Commission of Wisconsin (hereinafter for convenience sometimes referred to as the ''Commission'') is an administrative department or executive agency of the State of Wisconsin, existing under the provisions of Chapter 195 of the Wisconsin Statutes, composed of three Commissioners and having its principal office in the State Capitol in the City of Madison and County of Dane in the Western District of Wisconsin, and it is charged, among other things, with the administration of Chapter 196 of the Wisconsin Statutes. The defendants, [fol. 3] Theodore Kronshage, Jr., A. R. McDonald and David E. Lilienthal, are the duly appointed, qualified and acting Commissioners constituting the Commission, having their official residence in the City of Madison and County of Dane in said Western District of Wisconsin; the said defendant Theodore Kronshage, Jr., is personally a citizen and resident of Milwaukee County, Wisconsin; the said defendant, A. R. McDonald, is personally a citizen and resident of Dane County, Wisconsin; the said defendant, David E. Lilienthal, is personally a citizen and resident of Dane County, Wisconsin; the defendant, William M. Dimeen, is the duly appointed, qualified and acting secretary of the said Commission and is personally a citizen and personally and officially a resident of Dane County in said Western District of Wisconsin; the defendant, John W. Reynolds, is the duly elected, qualified and acting Attorney General

of the State of Wisconsin, with his office and official residence in the City of Madison and County of Dane in said Western District of Wisconsin, and is personally a citizen and resident of Brown County, Wisconsin; all as complainant is informed and believes.

3. The amount in controversy in this suit exceeds Three Thousand Dollars ($3,000), exclusive of interest and costs.

This is a suit of a civil nature in equity, and is brought for the purpose of enjoining the enforcement of a certain order of the Commission designated "Opinion and Order, decided June 30, 1932," prescribing certain rates and charges to be charged by the complainant on and after August 1, 1932, to its subscribers and patrons within the State of Wisconsin, all as hereinafter more particularly stated, and arises under the Constitution and laws of the United States, in that, as the complainant avers, the rates prescribed in said Order are confiscatory of the complainant's property, used and useful in furnishing said telephone service, and said Order, therefore, seeks to deprive the complainant of its property without due process of law and [fol. 4] denies the complainant the equal protection of the laws, in violation of its rights under the Fourteenth Amendment of the Constitution of the United States and the said Order is, therefore, null and void.

The said suit further arises under the Constitution and laws of the United States in that, as the complainant avers, the proceedings and methods of the Commission in and in connection with and precedent to said Commission's Order deprive the complainant of its property without due process of law and deny the complainant the equal protection of the laws, in violation of its rights under the Fourteenth Amendment of the Constitution of the United States; and said Commission's Order further interferes with and burdens interstate commerce, in violation of Section 8 of Article I of the Constitution of the United States, and the said Order is for those reasons also null and void.

4. On or about the 29th day of July, 1931, the Commission, acting under the provisions of said Chapter 196 of the Wisconsin Statutes, caused to be commenced a proceeding entitled "In the Matter of a State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of The Wisconsin Telephone

Company," bearing the docket or case number "2-U-35," by the service on the complainant of an order entitled "Order for a State-Wide Investigation," a true copy of which order, marked "Exhibit A," is hereunto annexed and made a part hereof. The said investigation, which for convenience is hereinafter referred to as "the Commission proceeding," was thereafter pursued by the Commission, is still in progress and has not been completed. Following the institution of said investigation, the Commission, through its accountants and engineers, has partially examined the books, records, reports and plant of the complainant, and on April 1, 1932, commenced a series of hearings thereon. [fol. 5] Said hearings continued on April 2, 4, 25, 26, 27, and on May 2, 11, 12, 13, 16, 17, 18, and 19 and on June 1, 2, and 3 in said year at which hearings the Commission, through its accountants and engineers, introduced into evidence some testimony and exhibits setting forth alleged facts and deductions referring to a small portion of complainant's business taken as a whole and a more complete amount of data covering only complainant's plant and operations in the City of Madison, Wisconsin, and also through certain persons stated to be economists and statisticians, the Commission introduced into evidence testimony and exhibits setting forth general statistical compilations and theoretic economic deductions. During the hearings thus held, the complainant was given no opportunity to present any evidence or to bring the real facts to the attention of the Commission, excepting only cross-examination of part of the Commission's witnesses, and that subject to limitation by the Commission, and no opportunity to present argument on the law or the facts involved in the proceeding, other than argument as to the admissibility of certain of the Commission's evidence. Complainant is informed and believes that the said investigation is to be continued hereafter.

5. On or about June 30, 1932, the Commission made and issued its certain order entitled in the said Commission proceeding and designated "Opinion and Order, decided June 30, 1932" (which Order is hereinafter for convenience referred to as the "Commission's Order" and is the order, the enjoinment of enforcement of which is the purpose of this suit) consisting of a summary of ten printed pages and 156 printed pages of text, in addition to an index and glos-

sary, a true copy of which order, marked "Exhibit B," is hereunto annexed and made a part hereof. The Commission's Order, in addition to making certain findings, has ordered complainant, on and after the beginning of the first [fol. 6] billing period subsequent to July 31, 1932, to place in effect for all classes of exchange service (denominated in said Order "Exchange service and equipment"), with certain specified minor exceptions, a schedule of rates 12½% less than the schedule in force at the date of the Commission's Order, to remain in effect for a period of one year, unless said Order should be altered or amended by the Commission. "The first billing period subsequent to July 31, 1932," referred to in said Commission's Order, will occur on August 1, 1932, and additional periods will occur regularly thereafter every six days. No alteration or amendment of said Order by the Commission has been made. For convenience, the complainant's rates for exchange service (denominated in said Commission's Order as "exchange service and equipment") are hereinafter sometimes referred to as its "exchange rates."

6. Pursuant to the provisions of Section 196.405 of the Wisconsin Statutes, complainant duly made application to the Commission on July 19, 1932, for a rehearing with respect to the matters determined in and by the Commission's Order, a true copy of which application, marked "Exhibit C," is hereunto annexed and made a part hereof, and the allegations of which are true.

On July 25, 1932, by direction of the Commission, an oral argument in connection with complainant's application for rehearing was held before and heard by the Commission, at which complainant appeared by counsel and argued for said application. On the same day the Commission denied the said application. On July 25, 1932, the Commission notified the complainant in writing that it construed Section 196.405 of the Wisconsin Statutes to apply to complainant's application for rehearing and that consequently the said section of the Statutes, as construed by the Commission, operated to stay the effectiveness of the said Commission's Order for ten (10) days after denial of rehearing [fol. 7] and that, under said section of the Statutes, no penalties will apply during said ten days. The said period of ten days expires on August 4, 1932, and on said date and

thereafter, unless restrained by this court, the said Commission's Order will become effective and complainant's property will be confiscated thereby, as herein alleged.

7. The schedule of rates of the complainant in force at the date of said Commission's Order, and referred to as such in said Order (including the complainant's rates for exchange service directed to be reduced by said Order) is the present schedule of rates of the complainant, and said rates all were in effect during the years 1931 and 1932 and for some time prior thereto and said rates were duly established by said complainant from time to time theretofore and filed with the Commission under its present name or under its former name of Railroad Commission of Wisconsin and received the approval of the Commission, pursuant to the Statutes of Wisconsin, and many of said rates were fixed by express orders of said Commission; and on the date of said Commission's Order, to-wit: June 30, 1932, said rates were and now are the lawful rates of the complainant (which said rates are hereinafter sometimes referred to as the complainant's "present rates" or with reference to exchange service as its "present exchange rates").

The present rates for exchange service and also the present rates for toll service of complainant are less than the value of the services rendered by said complainant therefor and the services are reasonably worth at least the respective rates now being charged therefor, and said rates are less than just and reasonable rates.

8. The complainant's average investment during the year 1931 and during the first five months of the year 1932 (being the latest period for which information is available) in its property used and useful for furnishing the exchange [fol. 8] service covered by its rates, designated as "exchange rates," and also the average fair value of its said property during said periods, respectively, was as follows:

	Average 1931	Average first 5 months 1932
Complainant's investment in its exchange plants and equipment alone (not including working capital, stores and supplies and going value)	$53,515,430	$55,644,747
Complainant's investment in its exchange plants and equipment plus stores and supplies, working capital and going value allocable thereto	59,863,570	62,030,443
Fair value of complainant's exchange plants and equipment, plus stores and supplies, working capital and going value allocable thereto	55,895,026	57,903,995

The complainant's average investment during the same two periods in property used and useful for furnishing the entire telephone service of the complainant, and also the average fair value of its said property during said periods, respectively, was as follows:

	Average 1931	Average first 5 months 1932
Complainant's investment in telephone plants and equipment alone (not including working capital, stores and supplies and going value)	$72,513,126	$75,529,369
Complainant's investment in telephone plants and equipment plus stores and supplies, working capital and going value	81,135,066	84,204,134
Fair value of complainant's telephone plants and equipment, plus stores and supplies, working capital and going value	76,066,979	78,925,235

[fol. 9] The complainant's average investment during the same two periods in its property used and useful for furnishing intrastate exchange service (consisting of intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business) and also the average value of its said property during said periods, respectively, was as follows:

	Average 1931	Average first 5 months 1932
Complainant's investment in that portion of its exchange plants and equipment allocable to intrastate exchange service (not including working capital, stores and supplies and going value)	$52,520,000	$54,655,000
Complainant's investment in that portion of its exchange plants and equipment allocable to said intrastate exchange service, plus stores and supplies, working capital and going value allocable thereto	58,750,000	60,930,000
Fair value of that portion of complainant's exchange plants and equipment allocable to said intrastate exchange service, plus stores and supplies, working capital and going value allocable thereto	54,850,000	56,875,000

The complainant's average investment during the same two periods in its property used and useful for furnishing all intrastate telephone business (consisting of its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls, (b) interstate exchange service, and (c) that portion of the toll business consisting of interstate toll calls), and also the average fair value of [fol. 10] its said property during said periods, respectively, was as follows:

	Average 1931	Average first 5 months 1932
Complainant's investment in its plant and equipment allocable to its intrastate telephone business (not including working capital, stores and supplies and going value)	$67,905,000	$70,965,000
Complainant's investment in its plant and equipment allocable to its intrastate telephone business, plus stores and supplies, working capital and going value allocable thereto	75,980,000	79,115,000
Fair value of complainant's plant and equipment allocable to its intrastate telephone business, plus stores and supplies, working capital and going value allocable thereto	71,230,000	74,155,000

The investment of the complainant in each of the classes of property hereinbefore in this subdivision numbered 8 set forth and the fair value thereof on June 30, 1932, was and at the date hereof is in excess of the amount stated respectively as the average during the first five months of 1932.

9. The revenues produced by complainant's present rates respectively for each of the four classes of telephone service hereinbefore set forth in subdivision numbered 8, less operating expenses and taxes of the complainant allocable thereto, leave available for return on each of the several classes of property of the complainant, as hereinbefore set forth in subdivision numbered 8, resulting from the operations of the complainant within the State of Wisconsin, in [fol. 11] the year 1931 and the first five months of the year 1932, respectively, the amounts shown below:

	1931	First five months 1932
Exchange service	$2,331,571	$962,107
Entire telephone business	2,891,481	1,036,526
Intrastate exchange service	2,310,000	946,000
Entire intrastate telephone business	2,710,000	970,000

10. The reduction of the rates of the complainant directed by said Commission's Order as applied to complainant's revenues from each of the four classes of telephone service, hereinbefore set forth in subdivision numbered 8, less operating expenses and taxes of the complainant allocable thereto, after adjustment of said operating expenses and taxes in all instances where the amounts thereof would be modified as a result of reducing the said rates, would leave available for return on each of the several classes of property of the complainant, as hereinbefore set forth in subdivision numbered 8, as the result of the operations of the complainant within the State of Wisconsin if such

reduction of rates had been in effect, in the year 1931 and the first five months of the year 1932, respectively, the amounts shown below:

	1931	First five months 1932
Exchange service	$1,053,955	$463,856
Entire telephone business	1,663,583	555,394
Intrastate exchange service	1,035,000	450,000
Entire intrastate telephone business	1,482,000	490,000

11. For a long time prior to June 30, 1932, and on said date and ever since, the fair annual return which the complainant is entitled to earn from the rates imposed upon it by public authority, was and is an amount equal to not less than 8% of the fair value at the time of its use of its property used and useful in the rendition of its service.

[fol. 12] 12. The present rates of the complainant, as aforesaid, are less than just and reasonable rates; and the greatest annual return which the complainant has been able to realize thereunder on any of its classes of telephone service which are hereinbefore named in subdivisions numbered 8, 9, and 10, to-wit: complainant's exchange service, its entire telephone business, its intrastate exchange service and its entire intrastate telephone business in either the year 1931 or the first five months of the year 1932 (which is the latest period for which such information is available) was less than 4.5% per annum on complainant's average investment in its plant and equipment, used and useful, respectively, for furnishing such service, not including working capital, stores and supplies and going value, and also less than 4.3% per annum on the fair value of the complainant's property used and useful for furnishing such service.

The greatest annual return which complainant would be able to realize upon any of the classes of telephone service hereinbefore named after the application of the reduction of complainant's rates as directed in said Commission's Order would be less than 2.3% per annum on complainant's average investment in its plant and equipment used and useful for furnishing such service, not including working capital, stores and supplies and going value, and also less than 2.2% per annum on the fair value of the complainant's property used and useful for furnishing such service.

The complainant's revenues from its present rates and charges are declining and the actual result of applying the

rates for telephone service ordered by said Commission's Order on and after August 4, 1932, would result in a rate of return for each class of telephone service (including exchange service) and for all classes of telephone service rendered by the complainant (and especially of complainant's [fol. 13] total intrastate service and its intrastate exchange service) of even less than 2.2% per annum on the fair value of the complainant's property used and useful for furnishing such service.

13. The rates ordered by the Commission's Order are confiscatory and are not just and reasonable rates and, if enforced, will deprive the complainant of its property without due process of law and will deny it the equal protection of the law in violation of the Fourteenth Amendment of the Constitution of the United States and also in violation of Article I of the Constitution of the State of Wisconsin and particularly of Sections 1 and 22 of said Article and said Commission's Order is unlawful, confiscatory, illegal, unconstitutional and void.

14. Said Commission's Order on its face and aside from its other illegalities (whether or not apparent on its face) disregards the complainant's surplus invested in its telephone business, and allows said complainant a return of less than the legal rate of interest in Wisconsin, to-wit: 6%, on its investment in the property used and useful in rendering telephone service, and less than 6% on the value of the assets represented by said complainant's common stock attributed to its exchange telephone business by the Commission itself, and without providing any payment to said complainant for return on capital of its exchange telephone business involved in furnishing toll service; and the effect of said Commission's Order on its face and according to said Commission's computation, is to reduce the return of complainant from its entire telephone business, including exchange and toll, to less than 4⅓% on the net assets represented by its common stock on the basis of 1931 business, and to reduce said complainant's return on the basis of its business for the first five months of 1932 (which is the latest period for which figures are available) to a materially less amount, whether regarded with reference to said com- [fol. 14] plainant's exchange business alone or on the basis of said complainant's entire telephone business.

15. As hereinbefore set forth, the complainant's present rates for telephone service are less than reasonable and just rates; the Commission, under the statutes of Wisconsin, had and has no authority to prescribe rates to be charged by the complainant in lieu of the present rates, unless the said present rates are unjust, unreasonable, insufficient or unjustly discriminatory, and upon a valid finding to that effect; the finding of the Commission contained in the Commission's Order that the present rates of the complainant are unjust and unreasonable is contrary to the facts and void, and such invalidity also appears from the Commission's Order; and the rates therein prescribed are contrary to law and void.

16. The Commission's Order is temporary and purports to be an order issued under the provisions of Section 196.70 of the Wisconsin Statutes based upon the erroneous finding that "an emergency exists" within the meaning of said section, and the said Commission's Order is illegal, unconstitutional and void, irrespective of other respects, because it deprives complainant of property without due process of law and denies it the equal protection of the laws, in violation of the Fourteenth Amendment of the Constitution of the United States and of Article I of the Constitution of the State of Wisconsin, and particularly Sections 1 and 22 of said Article, for the reasons that:

a) The Commission has no jurisdiction or power to make any temporary order, whether under said section or otherwise, without notice and hearing thereon.

b) There was not at any time and is not now any emer- *public utility exists or has been threatened by reason of or in* gency under or as referred to in said section of the statutes.

c) No injury to the public or interests of the people or [fol. 15] any connection with the exchange rates of the complainant; and the alteration and change in complainant's rates, as ordered in said Commission's Order, was and is not necessary to and will not prevent injury to the business or interests of the public or any public utility.

d) Said Commission, in issuing said Commission's Order and in making the erroneous finding that "an emer-

gency'' exists, has attempted to exercise the legislative power and the said Order is void.

If said Section 196.70 of the Wisconsin Statutes authorizes and empowers the issue of said Commission's Order, said section is unconstitutional and void among other reasons because it constitutes a delegation of the legislative power to an administrative department or executive agency in violation of Section 1 of Article IV of the Constitution of the State of Wisconsin.

17. The toll and exchange service of said complainant constitutes a single system, using many common instrumentalities, and essentially similar in all respects excepting that toll service customarily involves the use of two exchanges or switchboards not in the same municipality, and exchange service in most cases involves service within a single municipality, and that in operating practice toll service is regarded and may be directed to a particular person, and aside from the use of exchange terminal facilities, has its rate of charge fixed by the individual call. The only physical or operatnig relation between the several exchanges of said complainant's state-wide system is their connection with each other through the instrumentality of said complainant's toll system.

18. The toll rates of the complainant and its connecting companies, according to their practice and the practice universally in use throughout the United States during the entire history of the telephone business, have covered and [fol. 16] now cover toll telephone service from toll board to toll board only; the exchange rates of the complainant have covered and now cover the furnishing of local service and also of toll service between the toll board and the subscriber's station; this system of designing rates both toll and exchange has the heretofore expressed approval of said Commission and said Commission itself has fixed the complainant's rates on said system.

Said Commission's Order, while eliminating from complainant's exchange rates all provision for meeting operating expenses and return on capital on the said element of terminal toll service furnished by or through the telephone exchanges, makes no provision for and does not authorize the complainant to obtain such compensation in any other

rates or in any other way, and fails to make a provision for any allocation of exchange revenues between local and toll service; and said Commission's Order, irrespective of other respects, is therefore confiscatory and deprives the complainant of property without due process of law, in violation of the Fourteenth Amendment of the Constitution of the United States and of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article.

19. Any attempt to make a change in the said universal system of designing toll rates and exchange rates in a single state will disturb the entire telephone service throughout the United States and interfere with and burden interstate commerce; and the said Commission's Order, irrespective of the other respects, is therefore illegal, unconstitutional and void and is in violation of Section 8 of Article I of the Constitution of the United States.

20. Said Commission's Order and also the Commission proceeding failed to comply with the Wisconsin statutes and also deprive the complainant of property without due [fol. 17] process of law and deny it the equal protection of the laws in violation of the Fourteenth Amendment of the Constitution of the United States and of Article I of the Constitution of the State of Wisconsin, and particularly Sections 1 and 22 of said Article, in that among other matters:

Said Commission's Order was entered without any hearing or presentation of evidence or opportunity for hearing by the complainant, excepting only a limited amount of cross-examination on certain of the Commission's witnesses; no notice was given to the complainant of the Commission's Order or proposed entry of a temporary order or of an order under Section 196.70 of the Wisconsin Statutes; said Commission acted as prosecutor in the hearing in said matter and not quasi-judicially, and particularly directed the preparation and presentation of evidence against the complainant; and said Commission denied the complainant's requested access to statements prepared in advance for the press by members of the Commission's staff with its knowledge and approval, summarizing exhibits and setting forth the testimony of prospective witnesses as if given, which complainant required for cross-

examination of witnesses and proper presentation of its case.

21. The Commission acted as prosecutor in the above entitled proceeding and not quasi-judicially, and the complainant had no opportunity for a due hearing therein, and the presumptions provided for by Sections 196.40 and 196.46 of the Wisconsin Statutes are therefore inapplicable to said Commission's Order; and if said sections of the statutes or either of them apply to said Commission's Order or are applicable with reference to the same, then said Sections 196.40 and 196.46 of the Wisconsin Statutes deprive said complainant of property without due process of law and deny to said complainant the equal protection of the laws and are in violation of the Fourteenth Amendment of the Constitution of the United States and in viola- [fol. 18] tion of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and are illegal, unconstitutional and void.

22. Said Commission's Order contains numerous errors of fact and findings contrary to the facts and also errors of law, all of which are more particularly set forth in said application for rehearing, which is marked "Exhibit C" hereunto annexed.

The complainant's telephone business has been conducted efficiently and economically during all of the times herein referred to and is now being so conducted, and all of the findings in said Commission's Order purporting to justify adjustments or changes in the amount of expenses and their allocation are contrary to the facts.

23. The complainant is without any plain, adequate or complete remedy at law because of the following facts, among others:

a) Unless the defendants are restrained and enjoined as herein prayed, they will, as complainant believes and so alleges, attempt to compel the complainant to comply with the Commission's Order and should the complainant refuse and fail to do so, to enforce the penalties prescribed by the laws of the State of Wisconsin; the complainant will be deterred and prevented by the threat of said penalties from charging lawful rates on each billing period after August 4, 1932, and from charging any rates other than

confiscatory rates prescribed by said Order and the complainant will therefore be compelled to submit to confiscation of its property without due process of law and in violation of its rights under the Constitution of the United States, as hereinbefore alleged, and will be subject to great and irreparable loss and damage.

b) Unless the defendants are restrained and enjoined as herein prayed, the complainant's subscribers in the State of Wisconsin will, as the complainant believes and [fol. 19] so alleges, be induced and caused to resist and refuse payment of the amount resulting from the application of any rates in excess of those prescribed in said Commission's Order. The present number of the complainant's subscribers in the said State is more than 265,000 and the average of the monthly bills rendered to them is less than $5.10 each. Because of the nature of the business of the complainant and the fact that the amounts due monthly from its subscribers for telephone service are generally small, as aforesaid, it is impracticable for the complainant to enforce collection thereof by action of law; the complainant has no practicable way to enforce collection of its rates and charges except by cutting off and refusing service after default in payment, and its subscribers will, as complainant believes and so alleges, institute large numbers of suits to restrain the complainant from cutting off and refusing service as aforesaid and for damages, and the complainant will thereby be subjected to endless multiplicities of suits. Issues which would be presented in each suit are presented and should and will be decided in this action.

c) If the complainant is compelled to make effective the rates prescribed in the Commission's Order, even for a limited period, and thereafter such Order should be held to be void, the complainant would be unable to recover from a substantial number of its subscribers the difference between the said illegal rates prescribed by said Commission's Order and the complainant's present just and lawful rates; and also the complainant would be forced to institute endless multiplicities of suits and in numerous cases to cut off and refuse service to subscribers who refuse to pay the complainant the amounts then due, all to the disruption of the complainant's service and its great and irreparable loss and damage.

d) If the complainant is compelled to make effective the rates prescribed in such Order, even for a limited period, [fol. 20] the complainant's property will be confiscated, and its expenses for accounting and collection will be greatly increased, all to its great and irreparable loss and damage.

Wherefore the complainant prays:

1st. That the rates prescribed in said Commission's Order be decreed to be in violation of the Constitution of the United States and the Constitution and Statutes of the State of Wisconsin and that the said Commission's Order be decreed to be void.

2nd. That the defendants and each of them and their clerks, servants and attorneys and all persons acting under them or by their direction or authority and all other persons be enjoined and restrained perpetually and also during the pendency of this suit from any attempt to compel the complainant, its officers, agents or employes, to observe or put in force the rates for telephone service prescribed by said Commission's Order, or to comply with said Commission's Order; and

3rd. That the defendants and each of them, their clerks, servants and attorneys and all persons acting under them or by their direction or authority and all other persons, be enjoined and restrained perpetually and also during the pendency of this suit from taking any steps or proceedings against the complainant, its officers, agents or employes, to enforce any penalties or other remedy for disregarding the rates prescribed by said Commission's Order or for failure in any other respects to comply with said Commission's Order.

4th. That the complainant have such other and further relief in the premises as may be just and proper.

May it please your honors to grant unto the complainant a writ of subpœna of the United States of America issuing out of and under the seal of this honorable court, directed [fols. 21 & 22] to the said defendants Public Service Commission of Wisconsin, Theodore Kronshage, Jr., A. R. McDonld, David E. Lilienthal, William M. Dinneen and

John W. Reynolds, as hereinbefore described, commanding them and each of them on a day certain to be named therein and under a certain penalty to be and appear before this honorable court, then and there to answer, but not under oath (answer under oath being hereby expressly waived) all and singular the premises, and to perform and abide by such orders, direction or decree as may be made against them in the premises, and that pending the hearing and determination of the application for an interlocutory injunction herein, a temporary restraining order may be issued as above prayed.

And the complainant will ever pray.

Wisconsin Telephone Company, by (Signed) W. R. McGovern, President. (Signed) Edwin S. Mack, (Signed) Frederic Sammond, Solicitors for Complainant. (Signed) Miller, Mack & Fairchild.

Duly sworn to by W. R. McGovern. Jurat omitted in printing.

[fol. 23-1] EXHIBIT "A" TO BILL OF COMPLAINT

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

[2—U.—35]

In the Matter of a State-wide Investigation, on the Commission's Own Motion, of the Rates, Rules Service, Practices, and Activities of the WISCONSIN TELEPHONE COMPANY

Order for a State-wide Investigation

LILIENTHAL, Commissioner:

This order provides for the institution, upon our own motion, of a state-wide investigation of the rates, rules, service, practices and activities of the Wisconsin Telephone Company. Our reasons for initiating this proceeding may be summarized as follows:

(1) The record in the Madison Case, Docket U.—4034, upon which we have been conducting hearings for some time, discloses the necessity for such an investigation.

(2) We are convinced of the unsoundness of determining telephone rates applicable to a state-wide system upon a "local-area" basis.

(3) Economy of effort and funds will result from the holding of a single hearing on the entire situation, the alternative (in the light of the complaint of the City of Milwaukee and the petitions of other cities) being several hearings covering much the same ground.

(1) Madison Record Shows Need for State-wide Case

During the extended hearings in the Madison Case facts were developed with reference to the Madison exchange [fol. 23-2] and the operations and property of the Wisconsin Telephone Company as a whole which, to our minds, make it imperative that we investigate the affairs of this entire company. There is no occasion for an enumeration of all the facts developed in the Madison record which led us to this conclusion. It is enough to mention the disturbing growth of the ratio of plant account to revenues and stations, and the equally marked growth of maintenance costs, in spite of improved technique, lower cost of materials and a more seasoned business. (See Exhibit 16.)

(2) State-wide Basis for Telephone Rates

The Madison Case was presented on the basis of book value, except as to going concern value. Most of the exhibits relating to the Madison exchange filed in that case were based upon prorations of these book figures. To approve or disapprove these prorations or to make others to take the place of those submitted in evidence, is not only to pass judgment upon the rates in Madison, but indirectly the rates in all the other exchanges in the Wisconsin system.

Furthermore, it is plain to us that the apportionment of property, revenues and expenses between toll and local operations vitally affects the reasonableness of rates in every exchange in the state operated by this Company. We should not, if we can avoid it, pass upon such apportionment and allocation as to Madison or any other single exchange without considering the effect of such apportionment upon the other exchanges.

There are two generally recognized principles of telephone rate-making where a telephone company operates a system throughout a state. One of these is known as the "local area" method, whereby rates are fixed on the basis of the property, revenues and expenses apportioned to a particular community, without regard to the effect of those rates upon other areas. The other is commonly known as the state-wide plan. We believe that the state-wide plan is the sounder theory of telephone rate-making, and it is the plan which we propose to follow in this investigation. The method has been urged upon various commissions, in competition with the local area plan, by several Bell system companies and, therefore, probably is not at variance with Bell system policy.

Perhaps the most notable instance of a state-wide tele- [fol. 23-3] phone investigation was that instituted by the New York Public Service Commission in 1919 and 1921. The New York Telephone Company in 1919 and 1920 made application for increases in rates throughout the entire state. Formal complaints against such increases were filed by many of the municipalities affected. The Commission set these for separate hearings, upon the theory that each municipal complaint constituted an individual proceeding. Extended public hearings were begun upon two of these complaints, arguments heard and orders entered. But there were still one hundred thirty-five complaints pending, and it became immediately obvious that if they were to be determined within a reasonable length of time some other plan of proceeding must be adopted. The Commission, therefore, adopted the plan which we are adopting here, i. e., it initiated an investigation upon its own motion of the rates and practices of the New York Telephone Company throughout the state. In 1923 a general order was issued covering the state-wide situation, fixing rates for all exchanges.

The conflicting theories are well explained in the opinion of Mr. Commissioner (now Chief Counsel) Blakeslee, in Stone vs. New York Telephone Co., (N. Y. P. S. C. 1921) P. U. R. 1921D 736, 740, 741, 757, 758:

"Early in the presentation of these cases, the company raised the issue as to whether its property should be considered from the standpoint of its state-wide investments,

and its uniform conduct of business on a state-wide basis, or on the basis of its operations in a restricted locality.

"This involved (a) The return upon its entire property and business. (b) The distribution of the charge on the rate payer.

"The company maintained that in order to give it a fair return upon its entire business,

"1st. The value of all its property used and useful in the business in the state of New York should be considered, and a rate of return predicated upon this property as a whole.

"2d. That the ultimate distribution of the rates was to be determined by an examination of the service conditions in each community from a telephonic standpoint, and that after such an examination the determination of whether the rates established were unequal or unjustly discriminatory should be made.

"The representatives of Syracuse argued that, under the Public Service Commissions Law, the value of the [fol. 23-4] property used in supplying telephone service, covered only by the local exchange rates, was to be considered; that the burden the rate-payer assumed was that of a reasonable average return upon the value of the property of which he had the actual use; that the local exchange service charge was, and should be, based on the value of its local property. Further, that the value of the company's property, and inferentially, its service, in the various other communities of the state, had no relation to the rate in the municipal area of Syracuse."

In the learned Commissioner's subsequent opinion in the same proceeding, In re New York Telephone Company, (N. Y. P. S. C. 1921) P. U. R. 1922A 497, he pointed out, in terms which apply with equal force to the situation we are facing in Wisconsin, the difficulties and the lost motion involved in determining rates upon the local area basis and method. Quoting from his opinion: "* * * the 'local area' theory depends upon the establishment and consideration of the value of the company's investment in each locality. This value is necessarily different and a matter of dispute in every locality."

"Experts employed by the various municipalities, as well as those of the company itself, get the figures from the company's books, for all expense items, revenues and the various reserves and other funds of the entire company, and then try to arbitrarily allocate and segregate the portions which they believe should be assigned to the area under consideration. This results in endless inaccuracies, disputes, and directly conflicting evidence and opinion.

"The overhead expenses of management, executive direction, supervision and auditing, are carried on the company wide basis. Extravagances and needless expenditure of money by the company, for excessive salaries and other things, multiplicity of detail and waste in the supervision of lines and in management, can be determined when the operations of the company are considered as a whole * * *

"Under the 'company wide' theory, however, it would seem that nearly all of these difficulties are obviated. Every fact relative to the conduct of the company's entire business is investigated including the determination, once and for all, of the value of the company's entire property, as well as expenses required for the operation and maintenance of proper service.

"The amount of revenue necessary can then be obtained by rates which are uniform, under like circumstances and conditions, instead of through hundreds of separate rates [fol. 23-5] and classifications for the same character of service, with the consequent discrimination and undue preference. Both toll and exchange rates can be so fixed and toll service costs and returns determined on a proper and sound basis.

"The burden of such investigation is assumed by the Commission under this method, and instead of duplicating an expense many times, through the trial of hundreds of detailed and long drawn out rate cases, with years of delay and litigation, the one investigation and determination is conclusive.

"The facts found and valuations so made should furnish a sound and settled basis for the use of a community, or the Commission, in any future investigations. Any community, feeling itself aggrieved, may then, with comparatively little cost, present its evidence to the Commission as to unreasonable or discriminatory rates, having practically all the es-

sential facts ready for its use and established of record. The unreasonableness or discriminatory character of rates can be shown by rates in other communities similarly situated, and the adequacy of service easily determined."

(3) Economy of Time and Effort Effected

On the 2nd day of July, 1931, the City of Milwaukee filed a petition with this Commission complaining of the rates of the Wisconsin Telephone Company in the Milwaukee exchange, and asking that this Commission investigate the reasonableness of those rates.

Under the statute it becomes our duty to hear the complaint of the City of Milwaukee. Milwaukee is a city of 725,263 inhabitants and the Milwaukee exchange includes 157,615 subscriber stations. Any results we might reach in this case might very vitally affect every exchange in the Wisconsin system.

On July 28, 1931, the City Council of Fond du Lac authorized the filing with this Commission of a petition calling for an investigation of the rates and rules of the Wisconsin Company.

The League of Wisconsin Municipalities on June 19, 1931, at its annual convention unanimously passed a resolution, a copy of which we herewith reproduce. A copy was filed with this Commission on July 17, 1931.

[fol. 23-6] "Resolution on Telephone Investigation

"Whereas, Applications for increased telephone rates are now pending before the Public Service Commission of Wisconsin, and

"Whereas, It is believed that if these test cases are successful that there will be an epidemic of telephone rate increases throughout the state as in 1925, and

"Whereas, There is strong basis for the belief that existing telephone rates are too high for the reasons outlined before the convention on Thursday morning, and

"Whereas, It is difficult for each city and village to effectively protect the interests of their citizens while the success of co-operative utility rate actions has been demonstrated by the leagues of municipalities in New York, Virginia and Kansas, now therefore be it

"Resolved, That the Public Service Commission of Wisconsin be and hereby is requested to make a state wide investigation of telephone rates and service on behalf of all cities and villages, and be it further

"Resolved, That the executive committee of the League be instructed to work out a plan for joint action by cities and villages in protecting the interests of telephone users in their communities, and be it further

"Resolved, That such plan be submitted to the governing body of each member of the League at the earliest possible opportunity."

On May 6, 1931, there was filed with this Commission a petition signed by the mayors and other officials of a number of Wisconsin cities, including several cities in which the Wisconsin Telephone Company operates exchanges, urging us to investigate telephone rates throughout the state.

This petition reads as follows:

"In accordance with the conversation of members of this Committee at the conference with Chairman Theodore Kronshage, Jr., of your Commission this morning, the undersigned committee appointed at a meeting of municipal officials held in Milwaukee on May 2nd, desire to petition the Railroad Commission of Wisconsin to make a state wide investigation with respect to telephone problems affecting the following companies:

[fol. 23-7] Wisconsin Telephone Company.
Commonwealth Telephone Company.
Community Telephone Company.
Mid Continent Telephone Company.
Central Union Telephone Company.
Northwest Telephone Company.

"It is the belief of this committee that such investigation might well cover the following matters:

"1. Valuations of these companies, especially in view of the following factors:

(a) Present decline of the price level.

(b) Attempts of some companies to reduce labor costs.

(c) Introduction of labor saving machinery since much of the existing equipment was installed.

"2. What constitutes a reasonable rate of return for these companies particularly in consideration of the present depression.

"3. Whether the payments to holding companies are excessive.

"4. Whether there has been proper allocation of toll charges.

"5. Whether proper depreciation policies have been followed by these companies.

"6. Whether obsolescence has been taken into consideration in determining the valuation of these companies.

"7. Any additional information that will result in improved service and reduced rates for Wisconsin citizens.

Respectfully submitted.

A. G. Schmedeman, Mayor of Madison, Chairman. Wm. J. Swoboda, Mayor of Racine. Eugene A. Clifford, City Attorney of Juneau. Daniel W. Hoan, Mayor of Milwaukee. James Pederson, Alderman of Marinette. Meyer M. Cohen, Councilman, Green Bay. L. E. Lurvey, City Attorney, Fond du Lac.

Other documents have been received by us petitioning for the investigation of rates throughout the state (letter of Mayor of Green Bay, our file No. C-218.1), or complaining of rates in a particular exchange of the Wisconsin Company, such as the Marinette exchange (see our file No. C-410).

[fol. 23-8] Twofold Aspect of State-wide Case

It is plain to see that the investigation now ordered by us on our own motion will have two aspects. First of all, we will hear testimony from the Company, from our own staff, and from any cities who may choose to intervene and produce testimony as to the property, revenues and expenses of this company operating as a state-wide system, as to rate of return and other relevant matters. We will attempt to determine whether the general level of rates is fair, whether the rates produce an adequate or an inadequate rate; we will endeavor to determine a rate base; we

will endeavor to pass upon the propriety of the depreciation and maintenance policies of the company as they affeect rates. Questions of general service standards, rules and other issues will be treated.

In the second place, however, there will be numerous questions as to differentials as between classes of subscribers, and there will doubtless be questions as to the fairness or discriminatory character of rates as between exchanges.

On the first aspect of the case, we take it that the case should be presented as a single issue. The presentation made by the Company for the entire system will be subjected to analysis by the Commission's staff and by city representatives, and the affirmative testimony presented by the Commission's staff and by the various cities will relate to the state-wide situation.

On the second aspect of the case, it may well be that particular cities may desire to make special presentations in order to make sure that the record adequately protects their interests. Furthermore, particular classes of subscribers such as hotels, private branch exchange subscribers, etc., may desire to present testimony as to the differential between the rate charged them and the rate charged to other classes of subscribers. Indeed, the Commission's staff itself may desire to investigate and to present testimony upon these differentials.

State-wide Rate Proceeding to be Expedited

Telephone rate proceedings in the past have been notoriously long-drawn out and replete with delays and adjournments. The Chicago Telephone Case, still not finally decided, began ten years ago. The New York Telephone [fol. 23-9] Case, concluded on May 1, 1931, began more than a decade ago. (For the chronology of this proceeding, and comment thereon, see, Frankfurter, The Public and Its Government, p. 95 et seq.) The responsibility for the length of these proceedings cannot be placed wholly upon the Companies, the municipalities, the Commissions or the Courts. Wherever the blame rests or however it may be distributed, the fact is undeniable that these interminable proceedings are intolerable alike to the user of service, the Company, and the State. In the proceeding we are initiat-

ing every effort will be made to expedite the investigation and the hearings, and suggestions looking toward that end will be welcomed. In insisting upon expedition we are not unmindful of the fact that the task we are undertaking is prodigious, and that it will impose a heavy burden of labor upon the Commission and its staff and the representatives of the Company.

The Accounting Department, under the direction of Chief Accountant Bickley and in immediate charge of Supervising Accountant Meisels plans to begin immediately upon an audit of the books of the Wisconsin Telephone Company, as we regard this as one of the first steps in this investigation. As nearly contemporaneously as possible the Commission contemplates the beginning of certain engineering studies which are necessary, particularly those relating to the problems of maintenance, operating expenses, the rapid growth in plant, apportionments and other related problems, We plan to hold conferences with the officials of the Wisconsin Company to work out the details of these two phases of the investigation, as we hope for and anticipate the cooperation of the Company in this investigation. We are safe in assuming that such cooperation will be furnished us by reason of the policy of the Company to give every assistance to the regulatory officials in fact finding, a policy which was demonstrated at the hearing recently concluded in the Madison Rate Case.

In our opinion and order in the Madison Rate Case, U.—4034, issued this day, we discussed at some length certain problems which would confront us in this present investigation raised by the relationship between the Wisconsin Telephone Company and its affiliates, the American Telephone and Telegraph Company and the Western Electric Company, and affiliates of these companies. In our opinion the state-wide investigation will be greatly expedited and the results will prove more satisfactory if at this time we out-[fol. 23-10] line some of the data we are convinced should be supplied to us, and if we point to some of the material which we feel our staff should have access to in the investigation of these relationships. We will proceed to describe some of this data herewith, referring to the opinion in the Madison Case for our reasons for requesting the material, and why we believe it should be supplied to us.

It will be observed that the following requests for information and data are identical with those with those requests which were made in the Madison Case, U.—4034, decided this day. The determination as to future procedure with reference to the Madison Case, mentioned in the concluding paragraph of our opinion in that case, page 43, supra, will also determine how to avoid duplication as a result of these identical requests.

Requests for Information and Data

Data to be Submitted Prior to Hearings

Among the issues which will call for proof and findings in this state-wide case will be those relating to the American and the Western Electric Companies discussed in our opinion in the Madison Case, dated June 3, 1931, reproduced herein at p. 65, and in our opinion in the same case dated July 29, p. 1, supra.

The normal procedure would be for the Company, in this state-wide case, to submit exhibits to meet these issues. Then it would be necessary for counsel for the municipalities and the Commission's Chief Examiner to request the submission of the underlying data and additional necessary information. A lengthy recess would be imperative, in order to permit the Company to assemble this data, to permit those requesting the data to study its implications and to prepare for cross-examination. We propose a different course. We suggest that the Company, as promptly as possible submit to us, in part at least, information of the character outlined in the following Requests for Information. It may develop that some of the data can best be furnished by permitting our staff to have access to records in out-of-state points. Then when the license contract and Western Electric phases of this case are presented, presumably by Messrs. Heiss and Gregory, and when they submit their exhibits there will be no reason for any delay in [fol. 23-11] proceeding at once to cross-examination. This should work out advantageously not only to the Commission, in its desire to expedite the case, but also to the Company, and not the least to the non-resident witnesses, whose time it is everyone's interest to conserve. While it is true that cross-examination may develop a need for further in-

formation, this will be minimized. It seems to us that this procedure will shorten the time necessary to conclude the hearings in the state-wide case.

Relations with American Company

I. The Commission desires to be furnished with all blank accounting forms and reports approved by the comptroller of the American Telephone and Telegraph Company (hereafter referred to as "American Company"), and all blank accounting forms and reports in use by the Wisconsin Telephone Company which have not been approved by the comptroller of the American Company;

II. We request that we be furnished with copies of the forms furnished and/or prepared by the American Company for the use of the Wisconsin Telephone Company and other associated operating companies, and for use by other affiliated companies such as the Western Electric, in preparing their budgets, together with the comptroller's instructions as to the manner in which these forms should be filled out.

III. The Commission desires to be furnished with a statement or statements, as may be necessary and most convenient, for each year from 1919 to 1931, inclusive, showing the American Company's revenues and expenses for its—

1. Long-Lines Department operations

2. License contract operations

3. Holding company operations.

The statement should show:

(a) The revenues from each of such operations for each year.

(b) The expenses attributable to each of such operations for each year classified by nature of the expense and as to departments for each operation, above.

1, 2, and 3. In order to show any apportionments which may have been made to the various operations, of amounts [fol. 23-12] carried in a certain classification of expenses, there should be given the total for each class and the apportionment to each operation. For example, if depreciation or maintenance of a certain kind of property has been ap-

portioned to the various operations, there should be presented the total depreciation or maintenance for each kind of property and the amount apportioned to each operation. Another example may be salaries of general officers. If these have been apportioned, there should be given the total and the amount assigned to each operation. There is desired, further, by a separate statement, if necessary, a reconciliation of the expenses as reported to the Interstate Commerce Commission, with the allocation to the various operations enumerated above.

(c) The depreciation reserve for the beginning and end of each year and the average for each year for each department, that is, long lines, license contract and holding company.

(d) The rate of return for each year on the long-lines investment before and after deducting depreciation reserves. This should be so prepared as to show the long-lines investment at the beginning and end of each year, before and after deducting depreciation reserves, and the factors or elements used in arriving at the rate of return.

(e) Certified copies of the annual reports to the Interstate Commerce Commission for the years 1919 to 1928, inclusive. (The reports for the years 1928 and 1930 have already been introduced in the Madison Case and Exhibits 19 and 20.)

The apportionments should include or be supported by the complete basis data upon which they are made, the reasons therefor and a break-down and description of the items allocated. The material should be so presented as to facilitate verification from company records; including a description or identification of sources, where appropriate.

IV. The Commission requests the Company to furnish a break-down of the figures shown by Mr. Charles A. Heiss in his Exhibits 21, 22 and 23, as introduced in U.—4034, the Madison Case. This request was made during the course of the Madison Case, and it was agreed that the data would be [fol. 23-13] furnished. We assume that this material will be received by us in the near future. In order to make the record clear, we are making a separate request in this present order. The same applies to the request in those hearings for copies of the consolidated income tax returns (or

access thereto) and the request for a toll map of the American Company lines in Wisconsin.

Relations with Western Electric Company

In our opinion in the Madison Case, we discussed at some length our views concerning Exhibit 28 which was submitted by Mr. Gregory, comptroller of the Western Electric Company, and which was reproduced at page 20 of our opinion.

V. With respect to Mr. Gregory's Exhibit 28 in that case on the sales and net profits of Western Electric Company on Bell business, and with particular reference to column 2, headed "Sales", the Commission requests a detailed statement showing sales made by the Western Electric Company to:

1. The American Company.

2. The Wisconsin Telephone Company.

3. To all associated companies operating under the license contract.

The Commission requests that this statement show separately the gross and the net sales and that the statement group the sales into the following classes of material:

a. Supplies, such as poles, wire, etc., which are purchased for associated companies and sold to them by the Western Electric Company without manufacture or change of form.

b. Lead-covered cable.

c. Receivers, transmitters, and induction coils.

d. Apparatus for telephone operations (excepting lead-covered cable, classified in (b) above.

The Commission requests that Item (d) above be separated into the following classes:

a. Apparatus manufactured by the Western Electric Company under specifications of individual associated companies.

b. Apparatus not manufactured by Western Electric but [fol. 23-14] manufactured by others according to Western

Electric specifications for associated companies generally, or for particular associated companies.

c. Apparatus manufactured by Western Electric according to specifications standard for the Bell system.

d. Compensation received for supplies and services, enumerated in Article II, Section 2, of the Standard Supply Contract of June 2, 1930, which is part No. 10 of Exhibit 8 in the Madison record, itemized separately according to the classification of that contract as follows:

1. Materials

2. Equipment specifications

3. Installations.

VI. The Commission calls attention to Column 3, entitled: "Total Cost of Sales", in Gregory's Exhibit 28 in the Madison Case, for the period from 1916 to 1930, inclusive, and requests an itemized statement conveying the following data:

1. Items of cost which make up the cost of sales as shown in Column 3 of Gregory's exhibit. These items are requested to be subdivided for each class of property sold, to correspond to the items designated as "sales" which will be shown in the statement to be furnished by the Company in response to Request V, above. Where sales are made on the basis of "cost plus" the Commission requests that the basis for such sales be specifically stated designating whether the sale is cost plus return on investment and if so, how much return, or whether on cost plus a percentage of cost, and if so, what percentage.

VII. The Commission requests the following information respecting the factor of depreciation in the determination of cost of sales under Column 3 in Gregory's Exhibit 28, in the Madison Case:

1. What is the amount of depreciation as computed on plant, on machinery, on inventory, on service equipment, on small tools and fixtures?

VIII. The Commission requests a statement of the items of cost which Gregory in his exhibits in the Madison Case [fol. 23-15] has apportioned to Bell sales and those which

are apportioned between Bell and Non-Bell sales, and the basis for such apportionment.

IX. Calling attention to Column 4 designated "Net Profits" in Gregory's exhibit on Sales and Net Profits of Bell Business, Ex. 28, in U.—4034, the Madison Rate Case, the Commission requests the Company to submit for the Commission's information a statement in detail showing the net profits referred to in Column 4 of this exhibit, subdivided in accordance with and for each of the classes of sales which are requested in the itemized statement which the Company is requested to furnish in response to our Request V, above, relating to Column 2 of the Gregory exhibit.

X. Calling attention to Column 5 of Gregory's Ex. 28, as introduced in the Madison Case, designated "Percent Net Profits to Sales", the Commission requests the Company to furnish a statement, itemized, showing the per cent of net profit to each of the classes of sales under the classification requested and which is to be furnished under our Request V, above.

XI. Referring to Mr. Gregory's Exhibit 29 in the Madison Rate Case which is reproduced on page 20, supra, and entitled "Net Profits and Average Investment Bell Business Years 1916-1930, inclusive", and with respect to the same witness's Exhibit 33 in the Madison Case, entitled "Analysis of Average Investment in Operations Bell Business Years 1916-1930, inclusive", the Commission makes the following request of the Wisconsin Telephone Company:

1. As to Column 4, of Ex. 29, designated "Percent Return on Investment" the Commission requests that it be furnished an itemized statement showing the classes and amount of assets and liabilities employed in reaching the various percentages shown in Column 4.

2. As to such assets and liabilities hereby requested to be furnished, the Commission requests a statement showing what portion of such assets and liabilities are allocable to Bell sales and those which are allocable between Bell and Non-Bell sales. Where allocations are made, the basis therefor should be stated.

[fol. 23-16] XII. With respect to the same exhibits we request that we be furnished a statement showing:

1. The basis of valuation of the Western Electric inventory. This statement should be classified as follows:

a. Raw materials.

b. Western Electric manufactured items.

c. Western Electric semi-manufactured items.

d. Items not manufactured by Western Electric but built by other manufacturers under Western Electric specifications.

e. Items not manufactured by Western Electric but for which Western Electric acts as jobber.

f. Plant.

g. Machinery.

h. Small tools.

i. Land.

j. Service equipment.

k. Fixtures.

XIII. It is requested that the Company furnish a statement showing the depreciation reserve carried on:

a. Plant.

b. Machinery.

c. Small tools.

d. Service equipment.

e. Fixtures.

XIV. The Commission requests that it be supplied with a statement giving names, for identification, of the various books and records which are the sources from which the figures are derived which will be shown in the various itemized statements requested above, in connection with Mr. Gregory's exhibits 28, 29 and 33. Where figures were reached and the computations made upon the basis of

studies, such facts should be stated, and in each case there should be submitted the working papers showing the constituent studies and data.

XV. The Commission requests that it be furnished with a set of accounting and record instructions for the Western Electric including all forms in use by the Western Electric.

XVI. The Commission requests that it be furnished with the annual balance sheets, operating results, and treasurer's cash statements, of all subsidiaries of the Western [fol. 23-17] Electric Company by companies, from 1909 or from the date of their organization *of* later, to 1930, inclusive, on the following items:

1. Telephone items manufactured by Western Electric;

2. Telephone items not of Western Electric manufacture but built according to Western Electric specifications;

3. Items not of Western Electric manufacture and sold by Western Electric as jobber;

4. Non-telephone apparatus manufactured by Western Electric or by others according to Western Electric specifications.

As to items (1), (2), and (4), show:

1. Patents embodied in products manufactured, owned or licensed by Western Electric or by American Telephone and Telegraph Company separately;

2. Cost to Western Electric of development or acquisition of such patents;

3. Sale price by the subsidiary company of such products;

4. Net profit to the subsidiary companies in sale of such products;

5. Royalty received by the subsidiary companies through licenses for the use of patents;

6. Rental or service charge made by the subsidiary companies for products where they are leased and not sold;

7. Contracts between the subsidiary companies and users of such products;

8. Profits of Western Electric on such products showing total profits on sales and portions thereof shown in yearly income account where manufacture is on long term contract basis.

XVII. The Commission requests annual balance sheets and profit and loss statements for each of such subsidiaries of the Western Electric Company for each year 1916-1930, inclusive.

XVIII. The Commission requests that it be furnished with a statement of the personnel of the subsidiaries of the Western Electric Company, including Bell Telephone Laboratories, Inc., who are also in the employ of the Western Electric Company and on its payroll, giving the amount of salaries in each case, and that portion charged to each company, and furnishing the basis of apportionment between companies.

XIX. The Commission requests that it be furnished with a statement analyzing the depreciation reserve account of [fol. 23-18] the Western Electric for the years 1915-1930, both inclusive, classifying separately buildings, machinery, fixtures, small tools and service equipment.

As to each of these classes of property, the Commission requests that there be shown:

1. The amount set aside for depreciation for each year;

2. The charges to the depreciation reserve for each year;

3. The balance in the depreciation reserve for each year;

4. Maintenance expense by years, exclusive of depreciation.

XX. The Commission requests that there be furnished to it the annual report to the stockholders of the Western Electric Company, an Illinois corporation, from 1909 to 1915, both inclusive, and the annual report to the stockholders of the present Western Electric Company, 1916-1930, both inclusive.

XXI. The Commission requests that it be furnished with information showing the number of shares of stock of the Western Electric Company setting up common and preferred separately, owned by the American Telephone and

Telegraph Company for the years 1909-1930, inclusive, and the per cent of total stock of the Western Electric Company outstanding, by class, owned by the American Telephone and Telegraph Company.

XXII. The Commission requests that it be furnished with information respecting the names of Western Electric subsidiary companies during the period 1909-1930, both inclusive, and the names of such subsidiary companies of the Western Electric, together with the statement of shares of stock and per cent of total outstanding stock in each class of subsidiary companies owned by the Western Electric Company during each of the stated years.

The Public Service Commission therefore finds, that (1) because of the situation revealed by the testimony in the Madison Case, (2) because to hold separate investigations on the complaint of the City of Milwaukee and other municipalities which have filed or may file such complaints would be wasteful of energy, time and money, and (3) by reason of the fact that we believe the state-wide basis for telephone rate-making is the sound and fair one, a state-wide investigation should be made of the rates, rules, service, practices and activities of the Wisconsin Telephone Company.

[fol. 23-19] The Commission Therefore Orders that an investigation and inquiry be, and the same is hereby instituted on the Commission's own motion into the rates, charges, tolls, rules, service, practices and activities of the Wisconsin Telephone Company.

The Commission Further Orders that such investigation shall include the relations of the Wisconsin Telephone Company with affiliated corporations, including the American Telephone and Telegraph Company, the Western Electric Company, the Bell Securities Company, the Graybar Comtany, Bell Laboratories, Inc., and other corporations in any wise affiliated with the Wisconsin Company or affiliated with affiliates of such Wisconsin Company.

The Commission Further Finds that this proceeding upon our own motion makes necessary an investigation of the books, accounts, practices and activities of the Wisconsin Telephone Company, and an appraisal of the property of the Wisconsin Telephone Company, and it is hereby ordered, That the expenses reasonably attributable to such investiga-

tion and appraisal will be assessed against and charged to the Wisconsin Telephone Company, under authority of Section 196-85 (1) of the Wisconsin Statutes.

Notice is hereby served upon the Wisconsin Telephone Company of our finding of necessity for such investigation.

Dated at Madison, Wisconsin, this 29th day of July, 1931.

Public Service Commission of Wisconsin. Theo. Kronshage, Jr., Chairman. A. R. McDonald, Commissioner. David E. Lilienthal, Commissioner.

Attest: Wm. M. Dinneen, Secretary. (Seal.)

BEFORE THE

PUBLIC SERVICE COMMISSION OF WISCONSIN

IN THE MATTER OF THE STATE-WIDE INVESTIGATION ON THE COMMISSION'S OWN MOTION OF THE RATES, RULES, SERVICES, PRACTICES AND ACTIVITIES OF THE WISCONSIN TELEPHONE COMPANY } 2—U—35

OPINION AND ORDER

Decided June 30, 1932

PUBLIC SERVICE COMMISSION OF WISCONSIN

THEODORE KRONSHAGE, JR.
Chairman

A. R. McDONALD
Commissioner

DAVID E. LILIENTHAL
Commissioner

WM. M. DINNEEN
Secretary

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BEFORE THE

PUBLIC SERVICE COMMISSION OF WISCONSIN

IN THE MATTER OF THE STATE-WIDE INVESTIGATION ON THE COMMISSION'S OWN MOTION OF THE RATES, RULES, SERVICES, PRACTICES AND ACTIVITIES OF THE WISCONSIN TELEPHONE COMPANY

2—U—35
Opinion and Order

SYNOPSIS OF OPINION AND ORDER

Eleven months ago the Commission instituted an investigation into the reasonableness of the rates and practices of the Wisconsin Telephone Company in its state-wide operations. After extended accounting and engineering investigation and the taking of testimony in public hearing the Commission has concluded that the proof thus far submitted establishes the clear necessity for an interlocutory order reducing exchange rates by 12½% throughout the state, such determination to be effective for a year, during which the investigation will probably be completed, the temporary order to be subject to modification at any time, for good cause shown.

No conclusion is reached, even for the purpose of a temporary interlocutory order, with reference to other than exchange rates, i.e., rates for local service within a single exchange. The present toll rates on file with the Commission are not found to be unreasonable, and continue in effect.

Our opinion describes in detail the reasons and facts underlying our findings. The purpose of this summary is to serve as an outline and condensation of this voluminous opinion.

The book figures of the Company show $2,331,571 exchange net operating income in 1931. With the adjustments in maintenance, depreciation, relief department and pension expense, license fee, taxes and amortization of intangible capital which we find to be proper in basing a rate order for the future, the

figure on exchange net operating income for 1931 is raised from $2,331,571 to $3,355,218. When segregation is made of exchange property and of the above named expenses and others between local use and toll use and only the amount allocated to the local service which we find to be properly attributable thereto, then the strictly local portion of exchange net operating income to be considered in fixing local rates, as this order does, in contradistinction to toll or long distance rates, becomes $3,812,227.

We find that $1,957,792 is sufficient, after payment of operating expenses, to pay fixed charges, preferred stock dividends and a 6% common stock dividend on the local share of the exchange portion of the Company's capital as we find that proportion to be.

We find that earnings which are sufficient after payment of all operating expenses to meet fixed charges, preferred stock dividends and to pay a 6% common stock dividend are reasonable and not confiscatory, under the circumstances.

The difference between the net operating income figure of $3,812,227 and the amount of $1,957,792 required for the payment of fixed charges, preferred dividend and a 6% common stock dividend, is $1,854,435, which represents the amount that the revenues of the Company might be cut, based on 1931 business, and the Company still earn a 6% common stock dividend on that part of its common stock applicable to local business.

We are ordering temporarily a reduction in local rates of 12½%, which reduction involves a decrease in exchange service revenues of $1,566,450, based on 1931 business.

Jurisdiction even in the matter of this temporary order is retained and the order held open at all times for modification in the light of changed conditions affecting the Company.

The opinion which follows first states the revenues and expenses for the year 1931 for the Company as a whole and for the exchange system and toll system separately in accordance with the Company's books. The net operating income as shown by the books was as follows:

Company as a whole	$2,891,481
Exchange system	2,331,571
Toll system	559,910

The next step is to study individual items of expense to determine whether they are reasonable allowances for the future and whether the accounting practices of the Company by which amounts were charged to operating expenses are proper. This analysis relates particularly to the exchange system.

OPERATING EXPENSES

Pension and Relief Department Expenses

Pension accruals, which amounted to over a quarter of a million dollars in 1931, we allow for purposes of the temporary order, reserving the right to disallow this item in the permanent order unless the Company establishes a pension fund system which more surely guarantees the rights of the workers in the fund. We point out that the pension trust agreement does not represent a binding trust at all and that it is highly questionable whether there exists any contract on the part of the Company to hold the pension fund for the benefit of the employees or whether this fund is merely a disguised surplus available to the stockholders.

We require the pension accruals, employees benefits and relief department expenses to be apportioned between construction and operating expenses.

The result of our adjustment of this account is that operating expenses are reduced from $343,189 to $283,625 or a decrease of $59,564.

Maintenance

Maintenance of $6.35 per average Company station, which was the unit cost in 1928, is considered as adequate. The 1931 maintenance book figure is decreased accordingly, namely, from $2,926,983 to $2,326,232 or a reduction of $600,751. Maintenance per station in 1931 was the following:

Entire exchange system	$ 7.99
Milwaukee	10.30
Madison	6.42
Seven largest exchanges	8.84
All other exchanges	6.45

Between 1928 and 1931 Milwaukee maintenance increased $3.64 per station, the seven large exchanges $2.29 and all other exchanges only $0.45. The increased expense at Milwaukee *more than accounted for the total increase* of the entire group comprising the seven largest exchanges. As to all other exchanges, which includes more than 90 such, an increase at Eau Claire explains *$52,000 out of $58,000* for the whole group. In the case of both Milwaukee and Eau Claire, increased maintenance over 1928 was largely associated with dial conversion. *For all exchanges except Milwaukee and Eau Claire, taken as a group, maintenance per station was less in 1931 than in 1928.*

We, therefore, regard 1928 maintenance as adequate. In reaching this conclusion we take no account of portions of amounts charged to maintenance for drop wire retirements which, it may later be found, should be charged to depreciation reserve and which in 1931 amounted to $187,363 and in 1928 to $38,558. Neither do we make deductions for any item pointed out as abnormal maintenance by Mr. J. G. Wray in his analysis of Madison maintenance (Ex. C-21, C-22) nor by the accountants' report on Madison maintenance (Ex. C-12). These latter data and other matters pointed to in the opinion are corroborative of our conclusion.

We reach the conclusion that in computing what maintenance costs should apply for the future, during the period of this order an allowance for maintenance of $6.35 per station, *which was the unit cost in 1928*, is fully adequate.

License Fees

No disallowance is made in whole or in part of the 1½% of gross revenue paid by Wisconsin Telephone Company to A. T. & T. Company as a license fee, this point also being reserved for the permanent order. Such expense, however, is required to be distributed between operation and construction or fixed capital, with the result that exchange operating expense for this item is reduced from $193,521 to $123,892 or a decrease of $69,629.

Depreciation

A considerable part of the opinion is devoted to the question of depreciation. An extensive study has been made by the Commission's Accounting Department of the Company's provision (in 1931 of $2,162,477 for exchange) for depreciation and a report prepared and introduced in evidence consisting of 390 pages of text, 47 charts and 116 pages of supplementary data. Attention is called to the excessive rates being applied on manual central office equipment and on station apparatus (telephone instruments and associated equipment). For manual central office equipment the Company is using a rate of 7½%. Previous to 1931 it applied a rate of 5.7%. The rate of 7½% is based upon a composite study of toll system and exchange investment. Facts developed by the Accounting Department from the Company's records clearly show that the life of exchange system manual central office equipment has been very much longer than that in the toll system—approximately fourteen years in the exchange system and less than seven years in the toll system. The conclusion is stated that 5.7% is an adequate rate for the exchange system manual central office equipment.

As to station apparatus the fact is pointed out that very much more than the total amount of the depreciable portion of this equipment has been accrued in the reserve and that the Company's estimate of service life, on which it has based its present percentage, is lower than warranted by the studies. The rate which the Company is applying is 5% and the rate which is found adequate is 3.2%.

Similarly, on private branch exchanges where the Company is applying a rate of 5.7%, 4.2% is found to be sufficient. For booths and special fittings the report reduces the provision for depreciation from 4.1% to 2.7%, in each instance based on Company experience as reflected in its records. Attention is also called to past depreciation practices which have been unduly liberal on other classes of property but, in view of changes which have been made in the rates applicable in 1931, only the rates for the classes specifically referred to above have been modified. As a result of this, the depreciation applicable to exchange system fixed capital was reduced from $2,162,477 to $1,888,520, or a reduction of $273,957.

Rentals and Amortization

Book amortization in 1931 was $38,923 which is cut to $19,177, a decrease of $19,746, inasmuch as part of the 1931 amortization has been completed.

Excess Property

The Commission has been impressed in its study of this case with an apparent excess of property and plant over that used and useful. This topic is discussed in two general ways. First, the unusual number of left-in stations, that is, stations for which service has been discontinued but which are still in place, is shown and the relation of such left-in stations to property made idle by their discontinuance is discussed. The opinion points out that the application of the percentages obtained from the study of left-in stations to the various property accounts may be faulty but develops the quantitative amounts as giving some measure or indication of what idle property there is resulting from the excess left-in stations. On various bases shown applying to different groups of property accounts the maximum figure indicated for investment made idle is $2,970,946. Other bases give amounts of approximately $2,500,000 and the smallest basis indicated, which is the application only to the accounts reflecting the equipment actually idle on premises of those who had formerly been subscribers without including any idle distribution system, is $453,057.

Aside from this, however, there are facts tending very strongly to indicate an existence of an excessive amount of plant in 1931 *even had the business continued at a normal level.* The best indication of this is the length of conductor (or wire) in the distribution system per station in use and per line in use.

No reduction of any kind has been made because of this excess although the opinion indicates that the actual excess may have been something over $1,800,000. The facts with reference to excess plant and to unused plant are set forth in the opinion but no quantitative adjustment has been made either of property or expenses. They appear to us, however, to further substantiate the reduction in maintenance cost which has been made.

Summary of Adjustments (before segregation)

The total adjustment made in relief department and pension expense, maintenance, depreciation, license fees and amortization is $1,042,772 and the exchange portion thereof, as distinguished from the strictly toll share, is $1,023,647. The effect of this adjustment in reducing expenses is to *increase* the reported net income for exchange operations by the same amount.

Apportionment to Local Service

What is commonly referred to as the exchange system of the Telephone Company, consisting of that property within an exchange area which is not used exclusively for toll purposes, in reality is used for *both toll and local messages*. A subscriber's telephone and the other local equipment may be used either in connection with conversations between the subscriber and another party in the same exchange area or it may be used in conversations between the subscriber and a party in some other exchange area. For example, the telephone of a subscriber living in Milwaukee may be used for communications within the Milwaukee exchange or it may be used for communications with other points such as Chicago, New York, or any of the points reached by the toll system of Wisconsin Telephone Company and associated companies. The exchange property is not used entirely for local messages and it follows, of course, that the cost of operating and maintaining that property is not entirely associated with the local business. There are two coordinate uses of the local property and the expenses, including the fixed charges, should be divided between local and toll services in accordance with the relative burdens thrown upon the exchange system by the two services.

In this case a detailed segregation of exchange property and expenses between local and toll services was made for the Madison exchange by engineers of the Company and also by engineers of the Commission. No such detailed segregation was made of property and expenses in other exchanges but there are similarities between the use in the various exchanges which, after allow-

ance is made for the relative amounts of local and toll traffic in the exchanges as compared with Madison, make it possible to adapt the Madison study to the system as a whole. In the Madison exchange area and carried on Madison exchange books there are considerable amounts of building, power plant, and other property which, though carried on exchange books under the classification of accounts, are not utilized at all for the local service. Similar conditions exist in some of the other exchanges but not as an average to the extent that they are found in Madison. Consequently, it is necessary, before applying the Madison figures to the state, even after giving weight to different proportions of exchange and toll traffic, to exclude from the Madison property, in the determination of the percentages, those classes of property which are not typical of the exchange situation. This is done in the section of the opinion dealing with Apportionment of Exchange Property and Expenses. The details of the apportionment are necessarily technical, and are set out at some length in the opinion. It should be noted however, that the ratio of toll to local traffic is higher in the average exchange of the state than it is in Madison. In Madison the ratio of originating toll calls to total calls originating in the exchange is 1½%. The average for the state, excluding Madison and Milwaukee, is 2.15%. In Milwaukee the proportion of toll business is lower, being very slightly over 1% of the total originating messages.

The Milwaukee exchange accounts also include general office buildings and other property used for the system as a whole. Adjustments have been made for these factors in getting at the segregation between exchange and toll for the entire exchange system.

The average 1931 exchange system property of $53,005,006, per books, is segregated as $47,988,710 to local use, as a maximum, and $5,016,296 to toll use, as a minimum.

Segregating expenses in this ratio and deducting from the exchange portion that share which is assignable to toll, we further decrease maintenance by $130,270; depreciation by $162,413; traffic expense by $102,451; relief department and pension expense by $11,345 and general and miscellaneous expenses by $13,966. Adjusting license fees (which are based on gross reve-

nue) to correspond with reduction in exchange revenue and adjusting taxes similarly gives a decrease of $15,023 in license fees and $21,541 in taxes.

These decreases total $457,009 which added to the $1,023,647 adjustment made before local apportionment, leads to an aggregate decrease by the Commission in the Company's reported local operating expenses of $1,480,656. The Company's exchange net operating income is consequently raised by this amount over what its books show and accordingly results in a total of $3,812,227 instead of $2,331,571 as reported by it.

WHAT THE COMPANY WILL EARN UNDER THIS ORDER

The Company had outstanding securities at the end of 1931 of $49,446,606. It would require revenue of $2,971,894 to meet the interest obligations, pay the 7% dividend on preferred stock and *a 6% dividend on common stock.*

Taking the proportion of fixed capital classified as exchange and applying this proportion as a percentage to the figure of revenue required, gives $2,162,350 as the amount necessary to pay interest, preferred dividends and a 6% common dividend, on the capital allocated to exchange property. Applying 90.5% as the percentage of exchange property used for local purposes gives $1,957,792 as the amount necessary to meet fixed charges and dividends as described, on the portion of exchange capital apportioned to local service.

The exchange net operating income as shown is $3,812,227. Therefore, on the basis of 1931 operations, a reduction of $1,854,435 might be made and the Company still enabled to pay 6% dividend on the common stock applicable to the local system.

Reducing exchange revenues by 12½%, as this order contemplates, will decrease these exchange revenues by $1,566,450, thus leaving a "cushion" of approximately $288,000, based on 1931 operations, *over and above* the payment of interest charges, preferred dividends and a 6% common dividend.

EXISTENCE OF ECONOMIC EMERGENCY

The Commission, upon its own motion, has had presented to it in this record testimony relating to the depression submitted by various departments of the state government, and by a group of nationally known economists. This testimony, covering many pages of the record, and which is summarized in the opinion, we find indicates an "emergency" within the meaning of Sec. 196.70, Wis. Stats., and *LaCrosse v. Railroad Commission,* 172 Wis. 233.

The existence of an economic crisis which has paralyzed business and impoverished individuals, is relevant in this proceeding in the following respects: (1) It constitutes an added reason for putting into effect an interlocutory temporary order without waiting upon the final results of the investigation; (2) it constitutes authority for a summary procedure, under the *LaCrosse* case, *supra;* (3) it affects and measures the value of service rendered by the Company, one of the essential factors in determining the reasonableness of rates; (4) it establishes the great increase in the purchasing power of the subscriber's dollar and of the dollar which the Company pays its parent corporation in dividends; (5) it affects the reasonableness of the return to which the Company is entitled.

FAIR RETURN

The principles of fair return laid down by the Courts reviewed in the opinion, emphasize general business conditions affecting all other business and the returns made by other businesses at the same time and place. Taking these judicially determined factors into account we find that the return permitted by the rates ordered, namely, a 6% dividend on common stock after all other charges of every nature are cared for, is more than ample under the authoritative standards of the United States Supreme Court, and that such a return is fair and reasonable.

OPINION AND ORDER

HISTORY OF THE CASE

This proceeding, the state-wide investigation of the rates, rules, services, practices and activities of Wisconsin Telephone Company, was instituted on motion of the Commission by order dated July 29, 1931, which followed hearings upon the Company's application for an increase in rates at the Madison Exchange (U—4034).

By order also dated July 29, 1931, the so-called Madison case was kept open, pending the submission of certain data and in view of the institution of the state-wide case.

Hearings on the state-wide case (2—U—35) were begun July 1, 1931.

The Company has been represented in this proceeding by *Miller, Mack & Fairchild* (*Edwin S. Mack* and *Frederick Sammond*), and by the Company's attorney, *J. F. Krizek*.

The Commission has been represented by *George C. Mathews*, Chief Examiner, and *Alvin C. Reis*.

The following appearances were also filed in the state-wide case:

League of Wisconsin Municipalities, by *Frederick N. MacMillin*, Secretary;

City of Milwaukee, by *John M. Niven*, City Attorney, and *W. J. Mattison*, Assistant City Attorney;

City of South Milwaukee, by *Clarence J. O'Brien*, City Attorney;

City of Waukesha, by *G. H. Daubner*, City Attorney;

City of Madison, by *Theodore G. Lewis*, City Attorney;

Town of Ixonia, by *Fred Smith*;

City of Stevens Point, by *Peter Walraven*, City Manager, and *Lyall N. Jenkins*, City Attorney;

Leon G. Clark, Mayville, appearing for 175 rural subscribers in and about Mayville.

Formal complaints relative to the rates of the Wisconsin Telephone Company were filed by the cities of Milwaukee, Fond du Lac, Green Bay, and Marinette and by the Committee of the

League of Wisconsin Municipalities, members of which were the Mayors of Madison, Racine, and Milwaukee, the City Attorney of Genoa City, and the City Attorney of Fond du Lac.

On April 25, 1932, the Madison record in U—4034 was incorporated into the state-wide record in 2—U—35, the effect being stated to be "that the Madison case is kept open and alive on that record so that if it is deemed feasible and desirable to dispose of that application for an increase by the Company separate from 2—U—35, it may be done, and at the same time, in this proceeding we will have the benefit of the testimony and exhibits taken in that proceeding." (Transcript, 2—U—35, pp. 253-254)

The record in the Madison case U—4034 consists up to the present time of nearly 1,400 pages of typewritten testimony and Exhibits 1 to 153, inclusive.

The record in the state-wide case 2—U—35 consists of over 2,050 typewritten pages of testimony and Exhibits C1 to C83, inclusive.

The most recent hearings were those held June 1, 2, and 3, 1932, devoted to the Company's cross-examination of the Commission's witnesses Bickley, Wray, and Hill, that of Bickley being not completed. The Company has cross-examined all the Commission's witnesses except Messrs. Colbert and Morehouse. The Company has stated that it is not yet ready to cross-examine Mr. Colbert on the report "Depreciation" and that it does not yet know whether it desires to cross-examine Mr. Morehouse relative to certain Company statistics submitted.

Hearings in the present proceeding will be resumed on August 1, 1932, and will continue until the Commission's direct case, cross-examination and the Company's rebuttal case, with such redirect evidence as may be necessary, are completed. The present order is temporary, pending completion of the case, and is based upon the record thus far.

REPORTED REVENUES AND EXPENSES—WISCONSIN TELEPHONE COMPANY, 1931

As a first step to the determination of the reasonableness or unreasonableness of rates of Wisconsin Telephone Company we present in the following tables an income statement for the year

ending December 31, 1931, showing separately operating revenues and expenses for the exchange and toll systems, and statements showing detail of revenues and of the principal groups of expenses. In the detailed statements of revenues and expenses, the toll system is shown separately, the total exchange system separately, and the latter is divided between the Milwaukee exchange and all other exchanges. From the standpoint of operating revenues the Milwaukee exchange constitutes more than half of the total exchange system, and for the classes of expenses detailed in the following tables the Milwaukee exchange is also responsible for more than half.

It will be noted that the net operating income of the entire exchange system as reported by the company for the year ended December 31, 1931, was $2,331,571, and for the toll system $559,910. It will be noted also that non-operating revenues for the Company exceeded the non-operating expenses by $123,719. Fixed charges were very small. The total amount of interest deductions, less a credit on account of amortization of intangibles and landed capital was only $161,610.

WISCONSIN TELEPHONE COMPANY

INCOME STATEMENT

Year Ended December 31, 1931

	Per Books		
	Total	Exchange	Toll
Operating Revenues:			
Telephone	$17,507,976	$13,050,113	$ 4,457,863
Miscellaneous	579,545	441,497	138,048
Total	$18,087,521	$13,491,610	$ 4,595,911
Operating Expenses:			
Maintenance	$ 3,525,311	$ 2,926,983	$ 598,328
Depreciation	3,094,864	2,162,477	932,387
Traffic	3,862,008	2,697,883	1,164,125
Commercial	1,580,085	1,167,237	412,848
Relief Department and Pensions	447,570	343,189	104,381
General and Miscellaneous	454,946	349,163	105,783
License Fee	256,277	193,521	62,756
Total	$13,221,061	$ 9,840,453	$ 3,380,608
Taxes	$ 1,658,680	$ 1,146,862	$ 511,818
Uncollectible Revenues	101,563	68,048	33,515
Uncollectible Revenues Adjustment	39,284	26,320	12,964
Rentals	136,529	39,433	97,096
Amortization of Intangible Capital	38,923	38,923	
Total	$15,196,040	$11,160,039	$ 4,036,001
Net Operating Income	$ 2,891,481	$ 2,331,571	$ 559,910
Non-Operating Revenues:			
Miscellaneous Rent Revenues	$ 4,234		
Dividend Revenues	2,736		
Interest Revenues	120,449		
Miscellaneous	4,543		
Total	$ 131,962		
Non-Operating Expenses:			
Rent Expense	$ 4,050		
Non-Operating Taxes	3,708		
Uncollectible Non-Operating Revenues	485		
Total	$ 8,243		
Net Non-Operating Income	$ 123,719		
Gross Income	$ 3,015,200		
Deductions:			
Interest on Funded Debt	$ 3,750		
Other Interest	183,774		
Amortization of Intangible and Landed Capital	(25,914)		
Total Deductions	$ 161,610		
Net Income	$ 2,853,590		

WISCONSIN TELEPHONE COMPANY

Operating Revenues

Year Ended December 31, 1931

Per Company's Commission Report

Account Number	Account Title	Total	Toll	Total Exchange	Milwaukee Exchange	Other Exchanges
	Exchange Service Revenues:					
500	Subscribers' Station Revenues	$12,655,542.87	$	$12,655,542.87	$6,648,544.81	$6,006,998.06
501	Public Pay Station Revenues	257,657.05		257,657.05	212,052.96	45,604.09
503	Service Stations	84,938.69		84,938.69		84,938.69
504	Private Exchange Lines	46,128.94		46,128.94	32,179.44	13,949.50
505	Minor Rents of Exchange Plant	5,845.13		5,845.13	1,297.93	4,547.20
	Total Exchange Service Revenues	$13,050,112.68	$	$13,050,112.68	$6,894,075.14	$6,156,037.54
	Toll Service Revenues:					
510	Message Tolls	$ 4,149,966.03	$4,149,966.03	$	$	$
512	Leased Toll Lines	171,776.35	171,776.35			
514	Telegraph Service on Toll Lines	61,060.58	61,060.58			
515	Minor Rents of Toll Plant	75,060.55	75,060.55			
	Total Toll Service Revenues	$ 4,457,863.51	$4,457,863.51	$	$	$
	Miscellaneous Operating Revenues:					
521	Telegraph Commissions	$ 16,452.87	$	$ 16,452.87	$ 5,912.07	$ 10,540.80
523	Advertising and Directory	331,141.54	195.42	330,946.12	227,699.31	103,246.81
524	Rents from Other Operating Property	170,576.95	114,519.07	56,057.88	34,580.22	21,477.66
525	Other Miscellaneous Revenues	61,373.56	23,333.24	38,040.32	24,832.63	13,207.69
	Total Miscellaneous Operating Revenues	$ 579,544.92	$ 138,047.73	$ 441,497.19	$ 293,024.23	$ 148,472.96
	Total Operating Revenues	$18,087,521.11	$4,595,911.24	$13,491,609.87	$7,187,099.37	$6,304,510.50

WISCONSIN TELEPHONE COMPANY

MAINTENANCE EXPENSES

Year Ended December 31, 1931

Per Company's Commission Report

Account Number	Account Title	Total	Toll	Total Exchange	Milwaukee Exchange	Other Exchanges
601	Supervision of Maintenance	$ 394,163.18	$ 79,287.17	$ 314,876.01	$ 178,964.84	$ 135,911.17
602	Repairs of Aerial Plant	1,016,375.74	335,012.59	681,363.15	277,704.47	403,658.68
603	Repairs of Underground Plant	241,344.20	16,368.09	224,976.11	191,314.50	33,661.61
604	Repairs of Central Office Equipment	627,519.43	161,139.68	466,379.75	280,781.27	185,598.48
605	Repairs of Station Equipment	596,991.76	3,660.81	593,330.95	341,942.68	251,388.27
606	Repairs of Buildings and Grounds	30,714.94	1,388.51	29,326.43	17,200.79	12,125.64
607	Station Removals and Changes	611,948.67	1,193.39	610,755.28	336,775.49	273,979.79
610	Other Maintenance Expenses	6,252.78	277.84	5,974.94	838.42	5,136.52
	Total Maintenance Expenses	$ 3,525,310.70	$ 598,328.08	$ 2,926,982.62	$1,625,522.46	$1,301,460.16

WISCONSIN TELEPHONE COMPANY

TRAFFIC EXPENSES

Year Ended December 31, 1931

Per Company's Commission Report

Account Number	Account Title	Total	Toll	Total Exchange	Milwaukee Exchange	Other Exchanges
621	Traffic Superintendence	$ 398,492.06	$ 104,189.03	$ 294,303.03	$ 170,531.32	$ 123,771.71
622	Service Inspection	64,005.27	28,611.97	35,393.30	23,160.49	12,232.81
623	Clerical Operating Wages	87,103.22	26,075.38	61,027.84	41,699.51	19,328.33
624	Operators' Wages	2,755,978.49	735,997.00	2,019,981.49	1,091,249.29	928,732.20
626	Rest and Lunch Rooms	16,611.10	3,456.61	13,154.49	10,245.96	2,908.53
627	Operators' Schooling	9,056.90	1,932.38	7,124.58	3,964.29	3,160.29
628	Transmission Power	121,492.55	50,656.29	70,836.26	30,292.99	40,543.27
629	Central Office Stationery & Printing	31,289.31	11,836.56	19,452.75	10,084.74	9,368.01
631	Miscellaneous Central Office Expenses	225,407.96	87,815.29	137,592.67	70,238.67	67,354.00
632	Pay Station Expenses	28,544.75	19,041.04	9,503.71	6,385.54	3,118.17
633	Other Traffic Expenses	124,026.12	94,513.54	29,512.58	27,216.78	2,295.80
	Total Traffic Expenses	$ 3,862,097.79	$1,164,125.09	$ 2,697,882.70	$1,485,069.58	$1,212,813.12

WISCONSIN TELEPHONE COMPANY

COMMERCIAL EXPENSES

Year Ended December 31, 1931

Per Company's Commission Report

Account Number	Account Title	Total	Toll	Total Exchange	Milwaukee Exchange	Other Exchanges
640	Commercial Administration	$ 488,205.47	$ 118,544.56	$ 369,660.91	$ 195,345.41	$ 174,315.50
642	Advertising	59,686.57	31,568.65	28,117.92	14,576.43	13,541.49
643	Canvassing	138,738.01	30,030.89	108,707.12	41,308.86	67,398.26
644	Sublicense Relations	13,379.93	13,379.93			
646	Revenue Accounting	248,315.26	106,775.57	141,539.69	69,528.26	72,011.43
647	Revenue Collecting	283,409.38	68,360.74	215,048.64	93,841.95	121,206.69
648	Pay Station Commissions	111,837.67	35,118.27	76,719.40	68,804.83	7,914.57
649	Directory Expenses	236,513.04	9,069.25	227,443.79	157,543.02	69,900.77
	Total Commercial Expenses	$ 1,580,085.33	$ 412,847.86	$ 1,167,237.47	$ 640,948.76	$ 526,288.71

WISCONSIN TELEPHONE COMPANY

GENERAL AND MISCELLANEOUS EXPENSES

Year Ended December 31, 1931

Per Company's Commission Report

Account Number	Account Title	Total	Toll	Total Exchange	Milwaukee Exchange	Other Exchanges
661	Salaries of General Officers	$ 83,950.51	$ 20,356.45	$ 63,594.06	$ 35,120.17	$ 28,473.89
662	Salaries of General Office Clerks	210,923.16	51,136.46	159,786.70	88,246.64	71,540.06
664	Expenses of General Officers and Clerks	15,332.17	3,707.67	11,624.50	6,458.28	5,166.22
665	General Office Stationery & Printing	18,758.08	4,652.03	14,196.05	7,842.10	6,353.95
666	Other General Office Supplies and Expenses	20,976.90	5,096.29	15,880.61	8,773.55	7,107.06
667	General Law Expenses	31,387.64	7,539.12	23,848.52	13,152.71	10,695.81
668	Insurance	20,177.88	4,182.73	15,995.15	9,956.51	6,038.64
669	Accidents and Damages	6,608.15	1,462.73	5,145.42	3,476.56	1,668.86
670	Law Expenses Connected With Damages	633.31	119.92	513.39	208.40	304.99
673	Telephone Franchise Requirements	5.00		5.00	5.00	
675	Other General Expenses	46,193.61	7,619.77	38,573.84	24,047.98	14,525.86
	Total General and Miscellaneous Expenses	$ 454,946.41	$ 105,783.17	$ 349,163.24	$ 197,287.90	$ 151,875.34

Errors in Company's Statement of Return on Madison Exchange in Case U—4034

In the first hearing in connection with its application for an increase in rates at Madison (U—4034), the Company submitted Exhibit 2 purporting to show that the net earnings on the Madison exchange, for the year 1929, were $21,570.39, or only 0.82 per cent of the property. The exhibit fails, in essential and obvious matters, to set forth the correct earnings and correct fixed capital to be used along the lines followed by the Company. In fact, the records of the Company and its reports to the Commission showed a net income for the Madison exchange business of $93,102.33 for the year 1929.

Because of its obvious inaccuracy, the exhibit will be discussed but briefly. It is reproduced below. There is shown, also, the amount at which the return should have been stated in conformity with the exceptions noted below to the Company's exhibit.

	Company's Exhibit 2 Madison Case U—4034	Exhibit After Correction
Madison plant and equipment	$ 2,518,923.46	$ 2,423,040.46
General prorate portion of general office buildings, stores and supplies (Milwaukee prorate)	108,572.00	104,543.00
Total	$ 2,627,495.46	$ 2,527,583.46
Exchange service revenues	$ 673,522.70	$ 673,522.70
Miscellaneous operating revenues	28,715.83	28,715.83
Total revenues	$ 702,238.53	$ 702,238.53
Maintenance—Madison plant	$ 154,101.78	$ 154,101.78
Maintenance—Milwaukee prorate		776.32
Depreciation—Madison plant	168,567.77	97,035.83
Depreciation—Milwaukee prorate		2,146.00
Traffic	196,964.85	196,964.85
Commercial	53,412.47	53,412.47
General and miscellaneous	30,638.88	30,638.88
Uncollectible operating revenue	2,420.84	2,420.84
Taxes assignable to operations	63,127.88	62,602.73
Rent deductions	1,482.47	1,482.47
License fee	9,951.20	9,951.20
Total expense	$ 680,668.14	$ 611,533.37
Balance for return (net income)	$ 21,570.39	$ 90,705.16
% Balance for return to total plant and equipment	0.82	3.59

The differences shown above will be considered in order.

1. Total plant and equipment. The amounts shown by the Company's exhibit represent the stated investment at the close of the year 1929 instead of the average for the year which was $99,912.00 less. That is, the Company related its earnings to plant and equipment which was $99,912.00 more than it should have been.

2. Depreciation. There was claimed $168,567.77 for depreciation on Madison plant and equipment only. The Company thereby ignored the amount actually provided for depreciation as a result of the application of its own studies which were reflected in the accounts and which amounted to $97,035.83. It was stated in the exhibit that the $168,567.77 was at the rate of 7% of the plant. In fact, the Company was claiming depreciation of 8.12% on depreciable property, as hereinafter explained, in contrast with a rate of 4.68% actually accrued in 1929. The Company's recorded depreciation in 1929 was certainly ample, as the record shows.

3. Taxes. Although the expense was increased for the purpose of the exhibit there was no offsetting decrease on account of the smaller income taxes which would have been assignable to the exchange if the expenses had been as claimed.

4. The Company made no allowance for maintenance and depreciation on the Milwaukee general prorate. In the above table, these items have been shown at $776.32 and $2,146.00, respectively. The expenses have thereby been increased $2,922.32 over those shown by the Company's accounts.

5. The net income shown in the second column, above, is $90,705.16. This is $2,397.17 less than the amount of $93,102.33 given by the Company in its reports to the Commission. The decrease in net income is accounted for by:

1. Allowances for maintenance and depreciation on Milwaukee prorate	$2,922.30
2. Reduction of state and federal income taxes to reflect above increase in expenses	525.13
Decrease in net income	$2,397.17

It is thereby seen that the amount available for return, in accordance with the Company's books and reports to the Commission, and after the allowance of maintenance and depreciation on the Milwaukee prorate, was $90,705.16 as compared with the claim of $21,570.39 as made by the Company in the Madison case. The return, on the Company's own basis, therefore, should have been not 0.82 per cent but 3.59 per cent on average *undepreciated* fixed capital.

The foregoing comparison is not presented by the Commission as an indication of the return earned by the Company on its Madison exchange in 1929 but merely to point out that the Company's claim of 0.82% was manifestly understated. If consideration were given to such factors as abnormal maintenance, excessive depreciation, property used for toll purposes and other items discussed in this opinion, it would be found that the earnings on the local exchange operations in Madison were substantially higher than even the book figures.

OPERATING EXPENSES

One of the important questions for the Commission to determine in this case is whether or not the expenses incurred in 1931 and reported to the Commission are properly chargeable against subscribers as part of operating expenses, and whether they represent reasonable and necessary expenses of operation.

Pension Fund Plan

The Wisconsin Telephone Company has adopted the stereotyped form of pension trust fund agreement utilized by American Telephone & Telegraph Company, naming Bankers' Trust Company of New York as trustee.

This agreement creates neither a specific fund nor a trust of any value to the employees.

Paragraph 15 of the pension trust agreement between American Telephone & Telegraph Company and Bankers' Trust Company, which by reference is made the agreement of the Wisconsin Company simply through the expedient of substituting corporate names, provides specifically:

"15. This instrument may be cancelled and the trust created

hereby revoked, at any time by the Company, by giving notice thereof in writing to the Trustee, provided that the trust shall not be revoked except upon the expiration of fifteen months from the receipt of such notice by the Trustee."

This "trust" is patently stamped as revocable at the whim of the donor, the telephone company. No cause for revocation need be assigned. No third party has any check on whether the Company shall revoke. The employees, for whose benefit the so-called trust is ostensibly established, are not even mentioned. They cannot act either as individuals or through a benefit association to oppose cancellation of the trust. The Company creates and the Company can destroy.

Furthermore, it is a most peculiar "trust" in that there never is a dollar in money or independent securities which passes from Wisconsin Telephone Company to Bankers' Trust Company. Expenses are charged with pension accruals and for these amounts, semi-annually, Wisconsin Telephone Company gives its note to Bankers' Trust Company, bearing interest at 5½%. (Even this interest is paid by note.) If Wisconsin Telephone Company were to become involved financially, the trustee might well find itself with a series of uncollectible promissory notes. Such is the trust *res* or property. This trustee does not appear to be a trustee at all; he has all the characteristics of a mere general creditor.

Upon the matter of investment of trust funds, the agreement purposely leaves the door wide open. No restriction is contained that the trustee shall invest only in securities generally recognized as fitting for trust investment. On the contrary, it is expressly recited that the trustee shall be *"free from any limitations imposed by law as to the manner of investing trust funds."* (Par. 3)

Not even is there suggested the limitation which common justice would seem to require, namely, that when it comes to investing in securities sponsored by the American Telephone & Telegraph Company or Wisconsin Telephone Company itself, there shall be some limit to the *amount* which may be invested in these particular securities. On the contrary, the trustee may invest *ad libitum* in the "bonds or notes" of the American Telephone & Telegraph Company or Wisconsin Telephone Company.

Not only that, but the trustee has no discretion as to what securities he shall invest in or to what extent. In paragraph 3 the provision is made: *"The Company may direct the Trustee to invest all or any part of the Pension Fund in any bonds or notes, whether secured or unsecured, of the Company, or of any associated or subsidiary Company of the Bell System."*

Should the inquiring employee of the Wisconsin Telephone Company endeavor to find out what his supposed trust fund is, he will search the balance sheet of his Company in vain, for there is nothing thereon to identify this trust save the item "bills payable—$2,049,606," as of December 31, 1931.

Wisconsin Telephone Company in a printed bulletin entitled "Plan for Employees' Pensions, Disability Benefits and Death Benefits," in section 4, paragraph 8, states:

> ". . . The Pension Fund shall be held by a trustee or trustees for service pension purposes only and shall be disbursed as directed by the Company from time to time. In case of termination of the Plan, or in case of revocation or other termination of said trust, the Company undertakes to preserve the integrity of the Pension Fund as a trust fund to be applied solely to service pension purposes in the manner which in its judgment will enable it to meet its service pension obligations most effectively."

Whether the Wisconsin Telephone Company's pension plan may thus be considered a contract with employees or whether it is a mere "benefaction" which, like the trust agreement, is revocable, is a question. If it were construed as a plan which in its entirety the Company could abandon tomorrow, throwing the so-called fund into surplus for the benefit of stockholders, would of course require us to disallow the accruals as an operating expense.

To phrase it differently, if the Company has the legal power to revoke the trust, cause the trustee to turn back its notes to it, cancel the notes, *and then credit surplus and declare a dividend*—the employees' pension fund is nothing more than a segregated surplus.

It may be urged that, although no *written contract* may exist between Wisconsin Telephone Company and its employees to preserve the pension moneys accumulated, nevertheless there is a

contractual arrangement entered into by the Company's holding out the offer of a pension and the employee, with knowledge of it, continuing to serve in employment in reliance upon this offer.

Such appears to be the interpretation placed upon the Western Union pension plan by the Supreme Court of Oregon in *McLemore v. Western Union Telegraph Company*, 88 Ore. 237, 171 Pac. 390. On the other hand, in *McNevin v. Solvay Process Co.*, 32 App. Div. 610, a pension fund established by an industrial concern was held, by virtue of the express provisions of the plan, to constitute no contract, the pension payments being treated as "gifts."

Gifts in the ordinary sense are not deductible by public utilities as an operating expense. *Reno Power, Light & Water Co. v. Public Service Commission*, 298 Fed. 790 (D. Nev. 1923); *Spring Valley Waterworks v. San Francisco*, 192 Fed. 137, 191 (N. D. Cal. 1911).

Since 1927 the Company has been making accruals for service pensions to retired employees on an actuarial basis. The amounts thus accrued in 1929, 1930 and 1931 were $219,619, $269,886 and $259,300, respectively. In addition, interest was charged at 5½% on the notes payable to Bankers Trust Company. The interest accruals during the three years were $64,954.33, $81,001.05, and $99,196.27, respectively. These amounts were likewise added to the notes payable which constitute the evidence of a fund in the records of the Wisconsin Telephone Company. The service pension payments made in these years were $11,533.59, $20,138.66 and $29,407.83, a total of $61,080.08.

In view of the revocable nature of the pension trust, there exists considerable doubt as to the propriety of charging the patrons of the Company with pension accruals, in contrast with actual pension payments. Resolving the doubt in favor of the Company, the Commission is not disposed at present to disallow this item.

The Company has followed the practice of charging the entire amount of the pension accruals of each year, other than the interest on the notes, as an operating expense with a division of the amounts between exchange and toll service. The Commission is of the opinion that if such pension accruals are allowed as a

proper cost, the entire amount should not be treated as an expense of current operations. A portion of these amounts should be capitalized by being added to fixed capital or to construction, another portion should be deducted from the depreciation reserve as a part of the cost of removal of retired property, and another part should be added to the cost of work performed for others, such as for American Telephone and Telegraph Company.

Pension payments to retired employees are made in consideration of the services which they rendered during the period of their productive employment. Under the existing system, the pension accrual charges are based upon wages and salaries paid, and the payments made to pensioned employees are likewise determined with reference to the compensation which they received during their productive years, and to their terms of service.

It appears to the Commission that such pensions, which are additional but deferred compensation to employees or to classes of employees who may have been variously engaged in construction, operation and other activities of the employing Company, should be charged on the books of the Company as nearly as may be, in accordance with the distribution of the payroll over a period of time, allowance being made for the different pension rates on male and female employees and for the fact that no pensions may be given certain employees, such as temporary.

The Company, in order to provide the necessary facilities for its operations, engages practically continuously in a construction program. If the construction work were all performed by outsiders, there can be no question that all proper charges which the Wisconsin Telephone Company was required to meet on account of payroll of parties performing the work would be chargeable to construction. We do not think that it alters the case where the Company handles its own construction work. During periods when a large amount of construction work is being carried on there is necessarily an additional amount of labor employed and over a period of time the pension payments will increase because of that fact. If the Company had to do no construction work, it would never have to meet certain of these pensions. As an operating concern, its operating results would be correctly stated without including any pensions to employees whose claims

to pension arise from the fact that they were engaged in construction work.

If then the Company for a period of time has a large construction program, the accounting practice which it follows would result in increasing the operating expenses on account of activities which have nothing to do with its current operation. It seems to us that it is just as erroneous to charge the entire pensions to operations as it would be to charge them entirely to construction and that the correct principle is to divide the pensions among the various types of activities as closely as practicable in accordance with the conditions which gave rise to the pensions.

Employees Benefits and Relief Department Expenses

The same principle, with respect to an apportionment, applies to employees benefits and relief department costs. These consist of sickness benefits, personal injury and disability compensation, death benefits and relief department expenses. During the years 1929, 1930 and 1931, these costs were $170,807.28, $172,971.02, and $188,269.91, respectively, all of which were charged as exchange and toll operating expenses. No portion was capitalized by being included in construction. Some of these costs, such as the payments to employees for personal injury incurred while engaged in their duties with the Company, are in the nature of workmen's compensation insurance. The Commission determines, as in the case of pension costs, that employees benefits and relief department expenses should be distributed in accordance with the salaries and wages of the individuals receiving such compensation and in whose behalf the relief department expenses are incurred.

Compensation insurance premiums, or their equivalent in case a utility carries its own insurance, are definitely related to payrolls. If all the construction work of the Wisconsin Telephone Company were performed by outside contractors, such insurance costs would doubtless be included in the charges by the contractors for the construction work. Similarly, if the contractors had some form of sickness and death benefits for employees, and if they maintained relief departments, the charges by the contractors for construction would include these expenses. The fact that the Telephone Company performs a sub-

stantial part of its own construction does not change the underlying principle with respect to employees benefit costs. Even though such expenses are incurred voluntarily, they are based upon the services received from employees. These services are for the operation of the telephone system, for construction, for property retirements, for custom work for other organizations, and for any other classes of work performed by the employees as represented by the payrolls. It must follow, therefore, that the benefit costs are to be distributed in accordance with payrolls.

There may now be combined, as in the accounting practice of the Company, the pension accruals, charged to operating expenses, and the costs of employees benefits and the relief department.

	1929	1930	1931
Pension accruals	$ 219,619	$ 269,886	$ 259,300
Employees benefits and relief department costs	170,807	172,971	188,270
Total	$ 390,426	$ 442,857	$ 447,570

The above totals were apportioned by the Company to the current operating expenses of the exchange and toll systems in the following amounts:

	1929	1930	1931
Exchange	$ 293,115	$ 334,190	$ 343,189
Toll	97,311	108,667	104,381
Total	$ 390,426	$ 442,857	$ 447,570

The most reasonable method now available for distributing these costs in accordance with the labor service of the employees who received the benefits and in whose behalf the pension accruals are made, is on the basis of wages and salaries paid by the Company. This will cause the pension and benefit costs to be distributed to exchange and toll operations, construction, and property retirements and to custom work performed for others. Ex-

hibit C-82 shows the payroll distribution to these classes of work as well as the payrolls charged to clearing accounts. The latter, in turn, are applied to construction, operations, and other classes of work. Sufficient accuracy is obtained at this time by consideration of only the direct payroll charges without reference to the clearing accounts, except for custom work. When the payrolls, shown in Exhibit C-82, are expressed in percentages of the total, other than clearing account payrolls, the following distribution is found:

Payroll	Per Cent Distribution		
	1929	1930	1931
Exchange			
Maintenance	14.91	16.59	19.55
Traffic	31.20	29.19	30.64
Commercial	7.95	8.19	9.42
General and miscellaneous	2.19	2.89	3.76
Total operating expense	56.25	56.86	63.37
Construction	15.07	11.88	9.41
Depreciation reserve	1.45	.96	1.29
Total exchange	72.77	69.70	74.07
Toll			
Maintenance	5.04	5.09	4.67
Traffic	12.26	11.62	11.47
Commercial	3.03	3.04	3.56
General and miscellaneous	.78	1.00	1.19
Total operating expense	21.11	20.75	20.89
Construction	3.65	7.05	3.14
Depreciation reserve	1.53	1.09	.67
Total toll	26.29	28.89	24.70
Custom work	.94	1.41	1.23
Total	100.00	100.00	100.00

The above table shows that in the year 1931 the percentage of payroll for construction work was materially less than in either of the two preceding years and the operating expense payroll constituted a larger proportion of the total than in either of such years. We have not made a payroll analysis for years preceding 1929 but, having in mind the pronounced growth of the Company's property, we conclude that the proportion of pay-

roll expended for construction work in years prior to 1929 was generally in excess of that expended for such purpose in 1931. Therefore, where we are dealing with 1931 results in this decision, any error introduced will result in leaving a larger proportion of the 1931 costs charged to operations than would result if a completely accurate method were practicable. In other words, we will be dealing with operating expenses for 1931 somewhat in excess of the amount correctly chargeable to operations.

Pending a more complete determination of the facts with respect to payroll distributions, the Commission will base an apportionment of pension, employees benefits and relief department costs on the percentages given above. This gives the following results for the year 1931:

	Exchange	Toll	Total
Operating expenses	$ 283,625	$ 93,497	$ 377,122
Construction	42,116	14,054	56,170
Depreciation reserve (retirements)	5,774	2,999	8,773
Sub total	$ 331,515	$ 110,550	$ 442,065
Custom work			5,505
Total			$ 447,570

It has been shown that during the year 1931 the Company charged $343,189 of these costs as an expense of current operation of its exchange system. The apportionment by the Commission reduces this to $283,625, a reduction of $59,564.

Based on the foregoing considerations, we find that, subject to the limitations expressed above, the method of apportionment used in the foregoing analysis is reasonable for the period of this order, and that, using this method, the adjustment of these 1931 expenses is reasonable.

A more exact apportionment would require the following calculations but which are considered unnecessary for the purposes of this temporary interlocutory order:

1. Recognition of different rates for pension accruals used on wages and salaries of male and female employees. This would increase the amount charged to construction because (a) the rate on salaries of male employees is approximately double what it is on those of females and (b) construction labor is preponderantly male.

2. The exclusion of wages and salaries of temporary employees who are entitled to no pensions or benefits other than injury benefits.
3. The elimination from general and miscellaneous expense payrolls, included in the base, of payroll of the relief department. This would apply only to the apportionment of relief department expenses and would not be material.
4. The transfer from general and miscellaneous expense payrolls to construction payrolls of amounts which have been capitalized by the Company but which are not so shown in the payroll distribution.
5. The apportionment of the clearing account payrolls. A preponderant part of the house service payrolls are charged ultimately to operating expenses. On the other hand, the major portion of engineering and plant supervision payrolls would be capitalized. This would more than offset the addition to operating expense payrolls for house service.

Such considerations, we conclude, would not materially change the apportionment which the Commission has made in this order.

Maintenance Expenses—Exchange System

Of the operating expenses of exchange telephone service, the group called maintenance has bulked the largest. This group comprises the annual expenditures made to keep the Company's property in good condition for rendering satisfactory service.

Maintenance expenses of the exchange system have grown very rapidly in recent years. The following tabulation, prepared from the annual reports of the Company to this Commission, shows the movement in recent years of maintenance per average station.

MAINTENANCE PER STATION

	Madison	Milwaukee	Seven Large Exchanges	All Other Exchanges	Entire Exchange System
1924	$4.37	$6.19	$5.65	$5.23	$5.50
1925	5.22	6.66	6.12	5.43	5.87
1926	4.85	6.96	6.23	5.64	6.01
1927	6.45	6.20	6.19	5.98	6.12
1928	7.11	6.66	6.55	5.98	6.35
1929	7.00	8.53	7.79	5.97	7.15
1930	7.13	10.99	9.32	5.91	8.13
1931	6.42	10.30	8.84	6.43	7.99

In this table the column headed "Seven Large Exchanges" includes Green Bay, Madison, Milwaukee, Oshkosh, Kenosha, Racine, and Sheboygan which is a group of exchanges for which certain maintenance data were introduced in the Madison case. The number of stations used in the preparation of the table is the average of Company stations, including both main stations and extension phones, at the beginning and end of the year, except that for 1924 substantial numbers of stations acquired by purchases in January were treated as Company stations at the beginning of the year rather than as additions during the year.

The Commission is therefore faced with the problem of determining whether all of these maintenance expenses were reasonable and what would be reasonable operating expenses of this nature which the subscribers in the future might fairly be asked to pay. Our attention is particularly challenged by the marked increase in recent years.

We recognize several factors which, generally speaking, may tend to cause increased expenditures for maintenance. There may be an increased amount of physical property to take care of and some of that property may be in excess of a reasonably used and useful amount. Property may be scattered over a wider area as lines are extended farther from the central office. The labor involved and the materials used in maintenance work may increase in price. Standards of maintenance may be raised and by closer inspection of the property so-called "preventive" maintenance work may be done. A major change in the type of property or of operation may make it seem feasible to increase the maintenance work performed on classes of property more or less

closely associated with this change. A striking illustration is the shift to automatic from manually operated switchboards, frequently called "dial conversion."

On the other hand, the increased amount of the physical property to be maintained may be of the type requiring less maintenance than other or superseded types of property. The efforts of labor engaged in maintenance may be misdirected or inefficiently applied. Too many workers may be used for the amount or type of work to be performed. The prices of materials may not be freely determined. Standards of maintenance may be needlessly high or unnecessary maintenance, whether or not in conjunction with major changes of property or methods of operation, may be indulged in. Maintenance work may be performed on some property that is not used and useful. Expenditures may be charged to maintenance when they should properly be charged to some other account. All these and doubtless other factors may be involved in varying degrees in determining reasonable maintenance expenses which subscribers should be asked to meet in the future through the rates charged for service.

Since our interest is challenged by the rise in maintenance costs in recent years, we have studied the evidence thus far introduced into the record and the annual reports of the Company to this Commission, to determine whether these increased costs, under present conditions, are reasonable operating expenses to be met through rates charged consumers in the future.

The figures just shown exhibit very clearly the great increase in maintenance expenses, especially during the last three years. For the entire exchange system, 1931 maintenance per station was $1.64 more than in 1928. But when the increases are compared for various portions of the exchange system, some wide differences appear, as in the following summary:

	Milwaukee	Seven Large Exchanges	All Other Exchanges
1931 over 1924			
$ per average station	$4.11	$3.19	$1.20
Per cent increase	66.40%	56.46%	22.94%
1931 over 1928			
$ per average station	$3.64	$2.29	$0.45
Per cent increase	54.65%	34.96%	7.53%

It will be noted that the increase of maintenance per station for Milwaukee amounted to 54% from 1928 to 1931; for the seven large exchanges, 35%; for the balance of the exchange system, only 7%. The seven large exchanges include Milwaukee. If Milwaukee were excluded, an actual decline of maintenance cost per station in the six other exchanges from 1928 to 1931 would be shown, as can be seen from the following analysis of the group of seven large exchanges:

	Milwaukee	Six Large Exchanges Excluding Milwaukee
1931 over 1924		
$ per average station	$4.11	$1.36
Per cent increase	66.40%	29.6%
1931 over 1928		
$ per average station	$3.64	($0.39)
Per cent increase	54.65%	(6.15%)

Parentheses denote decrease.

The exchanges, exclusive of the seven large ones, had in 1931, 129,226 average stations out of a Company total of 366,312, or a little over 35% of all stations. The 1931 expense per station for this group was $0.45 above the 1928 level which would account for $58,152 of the total increased maintenance expense of the group.

The Company is now engaged in changing the Eau Claire exchange from manual to dial. During the four most recent past years the Eau Claire exchange report shows the following:

	Maintenance Expense	Average Company Stations	Maintenance per Average Company Station
1928	$37,393	6,065	$6.16
1929	41,222	6,455	6.39
1930	41,034	6,814	6.02
1931	95,311	7,035	13.55

The average stations at Eau Claire in 1931 constituted 5.4% of total stations for the group of exchanges exclusive of the seven large ones, but as compared with a total of $58,152 of 1931

maintenance for the group accounted for by the increased cost of maintenance per station. Eau Claire alone, with an increase of $7.39 in maintenance cost per station from 1928 to 1931, was responsible for $51,989.

Therefore, had it not been for Milwaukee and Eau Claire, the exchange system of Wisconsin Telephone Company would have shown lower per station maintenance expenses in 1931 than in 1928.

Maintenance expenses in Milwaukee for the 1929 to 1931 period have been increased very greatly on account of work incidental to the change from manual to dial equipment. That Eau Claire maintenance expenses for 1931 when dial conversion was also in progress were abnormal, is made sufficiently evident by a comparison of the three years immediately prior to 1931, when the range was from $6.02 to $6.39 per station, with the year 1931 with its $13.55 per station.

Whether or not there may be some justification in a period of growing business for some increase in maintenance expenses in conjunction with a change to automatic switching is a question we do not need to determine now. There has been a material loss of subscribers in recent months, and the loss in the Milwaukee exchange has been severe. With such a falling off of business, the inadequacy of manually operated equipment tends to disappear as an important factor influencing a change from manual to dial operation. Moreover, the decline of the number of experienced operators, and of operators in training, employed by the Company itself (Exhibit C-55) indicates there is no serious scarcity of suitable operators for continued use of switchboards operated by hand. Under present circumstances, therefore, we see no reason why the Company's patrons should be asked to shoulder such enhanced maintenance expenses.

Another fact bearing on increased maintenance costs is that the fixed capital investment per station has increased during the past several years. Part of this increase is due to added quantities of physical plant per station; and part is attributable to increasing average investment costs per unit of plant in place.

With actually more plant per station, maintenance expense would naturally, other things being equal, tend to increase. But if the added plant is in excess of need, e.g., is property not used

or useful, then the expense of maintaining such unused and useful property should not be borne by customers. To this matter of excess plant we shall refer in another part of this opinion.

That part of increased average investment per station attributable to increased prices is difficult to measure. This is especially hard in the case of outside plant because increased prices are somewhat offset per unit available for measurement by inherent economies per unit in view of the installation of cables carrying more conductor pairs and of conduit consisting of more ducts. For example, a new cable costing somewhat more than an old one may have many more pairs of wires and thus be more economical per pair feet of wire though the cost per foot of cable is greater. The situation is similar with conduit consisting of more ducts. To illustrate, the 1931 outside plant investment in dollars—per thousand pair feet of conductor—had decreased by 4.2% from the 1925 amount and was substantially the same as in 1928. On the other hand, the outside plant investment per Company station increased from $55.17 at the end of 1925 to $58.53 at December 31, 1928, and to $70.06 at the close of 1931.

For other classes of plant exact comparison is made impossible by changes in central office and subscribers' station equipment from manual to dial operation, on substantial parts of the system. But the record and the files of the Commission show enough to enable us to conclude unhesitatingly that a substantial part of the increased average investment cost per station has been due to the plant containing a larger proportion of construction materials and labor put in under relatively high price conditions.

However, the cost of maintenance is determined by the amount of work to be done and by the cost of labor, materials and other elements productive of the maintenance obtained, and not by the price level at which the maintained property was installed. It follows that the reasonableness of maintenance expenses should be judged without direct reference to price levels reflected in fixed capital accounts.

Some classes of telephone property require proportionately less maintenance than other classes. Hence, although total investment per station has grown, maintenance expenses should not rise proportionately, if the increased investment has been con-

centrated in classes of property subject to relatively low maintenance costs. It is clear from the Company's annual reports that the increased investment has been by no means uniform in all accounts.

The change in the various classes of distribution system property affords an illustration of the effect upon future maintenance expense requirements. We should note first that the total maintenance expense per station in 1928, as previously shown, was $6.35; but of this, maintenance of the distribution system amounted to $2.33, including a proportionate part of the expense of supervision but excluding any portion of Station Removals and Changes. Of this $2.33, less than 30 cents is attributed to maintenance of conduit, underground and submarine cable and slightly over $2.00 per station is accounted for as maintenance of exchange pole lines, aerial wire and aerial cable. The same relationship can be shown in different terms. The direct (excluding a portion of supervision expense) maintenance expense per dollar of investment in pole lines, aerial wire and aerial cable in 1928 was 5.87 cents, compared with .81 cent per dollar invested in conduit, and underground and submarine cable. In other words, the distribution system fixed capital accounts with which relatively large amounts of maintenance are associated are those for overhead plant. The classes of property included in underground plant are those having very much lower ratios of maintenance charges.

The changes in the percentages which each of these two groupings of property classes bears to the total exchange distribution system investment, as stated in the Company's annual reports to this Commission, are as follows:

	Dec. 31 1924	Dec. 31 1928	Dec. 31 1931
Aerial wire and cable, and poles	56.25%	49.95%	44.09%
Conduit, underground and submarine cable	43.75%	50.05%	55.91%
Total exchange distribution system investment	100.00%	100.00%	100.00%

This summary shows clearly the increased proportion of distribution system property subject to low maintenance costs. In

1928 just about half, and in 1931 almost 56%, of the distribution system plant was of a character requiring in 1928 only about one-seventh as much maintenance per dollar of investment as required by the overhead plant.

Maintenance expense is made up principally of the cost of labor and materials, although there are, of course, other elements of expense. Concerning the cost of labor, the only payroll figures showing average wage rates directly related to the cost of maintenance which are in the record are those presented by the Company in Exhibit 94 of the Madison case, showing plant department payroll per plant employee. It is true that those figures are not for the state as a whole but, in view of the Company's general wage policy, we believe the trend which they exhibit is reasonably representative of the situation for the state.

In Exhibit C-28 are figures dealing with the wage movement in the state for various classes of employment in various industries compiled from the records of the Industrial Commission, all of which have appeared in the publication known as The Wisconsin Labor Market. Exhibit C-28 contains data as to average weekly earnings.

By using the wage as of December, 1921 as 100%, we have constructed comparable index numbers of earnings per employee for the Company's plant department employees and for Wisconsin manufacturing industries generally. They are as follows:

	Wisconsin Telephone Company Plant Department*	Wisconsin Manufacturing Industries*
	%	%
Dec. 1921	100	100
Dec. 1922	102	108
Dec. 1923	104	113
Dec. 1924	106	117
Dec. 1925	108	120
Dec. 1926	111	115
Dec. 1927	114	118
Dec. 1928	112	118
Dec. 1929	113	113
Dec. 1930	118	97
Dec. 1931	Not shown	84

*The relative movements of these indexes, not their relative size, are the most significant of this tabulation.

At the end of 1930, plant department employees of Wisconsin Telephone Company still on the payroll were receiving 118% of their 1921 wages, while weekly earnings in manufacturing industries had fallen below the 1921 level. Telephone Company figures are not available for the end of 1931. By March, 1932 the index number of weekly earnings in manufacturing industries had fallen to 81, i.e., earnings were 81% of the December, 1921, rate.

Partially explaining and supplementing the foregoing index of the wages of the Company's plant department employees, we note from the Company's annual reports (see Exhibit C-55) a tendency to curtail employment by laying off employees in the lower wage groups, probably due to the effort to retain the more experienced employees. The following tabulation from Exhibit C-55 shows the percentage distribution of the numbers of foremen, maintenance and installation men in different weekly wage groups, 1929 to 1931. A separation of employees engaged solely in maintenance work from those in construction work is not possible from the annual reports.

NUMBER AND PERCENTAGE DISTRIBUTION BY CERTAIN WEEKLY WAGE GROUPS OF FOREMEN, MAINTENANCE AND INSTALLATION MEN

	Under $24.00		$24.00-$35.99		$36.00 and Over		Total	
	No.	Percentage of Total	No.	Percentage of Total	No.	Percentage of Total	No.	Percentage of Total
Dec. 31,								
1929	1006	34.9%	1387	48.2%	487	16.9%	2880	100.0%
1930	398	20.0%	954	48.1%	631	31.9%	1983	100.0%
1931	275	17.2%	719	45.2%	599	37.6%	1593	100.0%

This results, statistically at least, in showing higher earnings per employee retained on the payroll. Measured in a different way, the maintenance, replacement and construction payroll per average number of foremen, maintenance and installation men was $1653 in 1929; $1728 in 1930; and $1805 in 1931. These figures include construction workers and a major factor in the Company's reduced payrolls has been the curtailment of con-

struction work, but we do not have the data for segregating maintenance workers from those engaged in construction.

From the data available not only does the wage level appear to be generally unimpaired, but also the effect of the Company's lay-off policy apparently is to increase the average compensation per average employee retained on the payroll even though there be no increase in wage rates. Hence the increase in the index number for December, 1930, shown above, may not reflect increased wage rates. Involved in this matter are any changes in the productivity of those retained on the payroll; on this point, however, we have no data in the record. It seems reasonable to conclude that, if maintenance expenses are to be brought merely to the 1928 level, no serious adjustments of the Telephone Company's wage rates will be required.

Another major item in maintenance expense is the cost of materials. The record in this case does not permit us to form any measure of changes in the price of maintenance materials but we cannot but note that substantial quantities of such materials are manufactured by Western Electric Company—an affiliate—enjoying a practical monopoly in supplying such materials to Bell System Companies and freed from the influence of many of the severe competitive conditions to which other manufacturers are exposed.

In the opinion dated July 29, 1931, in the Madison case (U—4034) we raised several questions regarding the relations with the Western Electric Company. These are to be considered in our final disposition of this case. At the moment, however, we would not take very seriously a failure of maintenance material price levels to respond to the general price movement of the depression; nor would we conclude that any failure to so respond would justify unusually high maintenance expenses.

Another factor contributing to high maintenance expenses in recent years has been the adoption of a policy of inspection and preventive maintenance for certain classes of property. It seems clear that the cost of maintenance has thereby been increased but we have seen nothing to convince us that there has been any improvement in service which has warranted the expense.

In our discussion of maintenance we have so far said nothing with reference to adjustments of 1931 expenses on account of

the application of accounting principles which we question or because of errors in accounting. The complete study of maintenance by our accountants has so far embraced the accounts of the Madison exchange only. For that reason we have no complete exhibit of adjustments, which can only be developed by a study of the accounts of the entire exchange system. Neither are we in a position, as to the year 1928, to know whether possible accounting adjustments indicated for subsequent years have their counterpart in that year.

There is, however, one source of charges to maintenance accounts in recent years which merits somewhat extended discussion. For many years it was the practice to construct local telephone lines with bare wire supported on insulators and cross-arms. Connection to the subscriber's house or building was made from the nearest pole with a span of insulated wire. The bare wire as far as the last pole was classified as "line wire" and the insulated wire from the last pole to the building was classified as "drop wire." With the development of construction methods and the more extensive use of cable the practice was adopted of carrying the insulated wire back over several poles to the cable terminal. At first there was no corresponding change in accounting practice and the insulated wire between the cable terminal and the last pole was classified as "line wire," as had been the bare wire in lieu of which it was used. Effective January 1, 1929, recognition was given to the change in construction methods and the accounting practice was changed so that the insulated wire from the cable terminal to the last pole was changed from "line wire" to "drop wire."

We have asked our accounting staff for an analysis of the record and for its recommendation on this subject. We present the substance of the departmental report.

Exhibit C-23 shows that the accounting methods which the Company has used have resulted in the accrual of a depreciation reserve of $1,068,841.53 on drop wire. This reserve was accrued on drop wire which, up to January 1, 1929, was classified as line wire. Before that date, as explained above, a drop wire was defined as that section of a circuit extending from the last pole to the subscriber's premises. Effective January 1, 1929, drop wire was redefined to extend from the cable terminal to the subscriber's

premises. This increased the length of the drop wire to include what had formerly been considered line wire. The Company's policy has been to accrue depreciation on line wire but not on drop wire. Therefore, during the period in which a part of the present drop wire was classified as line wire, depreciation was charged thereon. This change in definition increased the drop wire investment by 40.62% of the balance after the change.

Losses resulting from the retirement of drop wires, when service is discontinued by subscribers, have been charged in their entirety to maintenance account 607, "Station Removals and Changes," even though the Company has built up a reserve, by depreciation expense charges, to provide for the retirement of a portion of the drop wire circuits. Consequently, telephone subscribers have virtually been paying twice for the retirement of that part of the drop wire formerly classed as line wire, first by contributing in past years toward building up a reserve for such retirements and again since 1928 by having the retirement expense charged in full to operating expenses in the year when the retirement takes place.

The Commission's Chief Accountant recommends that the existing depreciation reserve on drop wire should be used for the purpose for which created, namely, to absorb a portion of the losses incurred upon the retirement of drop wire when service is discontinued by subscribers and that such charges to the depreciation reserve should be continued until the reserve of $1,068,841.53 has been consumed. This applies to the part of the drop wire which, prior to January 1, 1929, had been defined as line wire.

The accounting department considers that if the Company were not required to use this reserve in the manner set forth herein, a grave injustice would be imposed upon its patrons and one which, by the same principles, could become of even greater magnitude. Reserves might be accrued on various classes of property. Subsequently, by changes in definition or by changes in accounting methods, the particular classes of plant and equipment might be retired by current maintenance charges. By such processes, large reserves would be accumulated by the use of revenues collected but these reserves would never be used for the purpose for which created and in accordance with representations by the Company as to their object.

Accounting has not reached a static condition. It may be subject to change. Classifications of property for accounting purposes may likewise be altered as circumstances may dictate. When such changes are made, there must be adequate protection afforded the public against unreasonable burdens.

During the years 1929, 1930 and 1931, the net drop wire losses charged to maintenance account "Station Removals and Changes" were $122,774.63, $131,109.10, and $263,010.13, respectively. These losses resulted from two conditions, (1) the ordinary retirements of drop wire made upon discontinuance of subscribers' service and (2) the replacement of covered wire, which is drop wire, by aerial cable. The amounts were as follows:

	(1)	(2)	Total
1929	$122,774.63	$	$122,774.63
1930	100,669.59	30,439.51	131,109.10
1931	126,880.63	136,129.50	263,010.13
Total	$350,324.85	$166,569.01	$516,893.86

With reference to the losses occasioned by ordinary retirements, 40.62% should be charged to the depreciation reserve because 40.62% of the balance in the account immediately after the change of definition came into the account as a result of the change and represented property against whose retirement loss a reserve amounting to more than $1,000,000 had been accumulated. On the other hand, all of the covered wire which was replaced by aerial cable had previously been treated as line wire and the entire amount of such wire losses should be charged to the depreciation reserve. This results in the following charges to the depreciation reserve and corresponding deductions from the maintenance charges:

	1929	1930	1931
Ordinary drop wire losses as recorded by company	$122,774.63	$100,669.59	$126,880.63
Deduct 40.62% to be charged to depreciation reserve	49,871.05	40,891.99	51,538.91
Amount remaining as a maintenance expense	$ 72,903.58	$ 59,777.60	$ 75,341.72
Drop wire losses resulting from aerial cable extensions, all of which losses are chargeable to depreciation reserve		$ 30,439.51	$136,129.50

When the foregoing is summarized, the following adjusted charges are determined:

	1929	1930	1931
Drop wire losses charged by company to maintenance	$122,774.63	$131,109.10	$263,010.13
Less amounts chargeable to depreciation reserve	49,871.05	71,331.50	187,668.41
Adjusted charge to maintenance	$ 72,903.58	$ 59,777.60	$ 75,341.72

During the three years, the maintenance costs should have totalled $208,022.90, instead of $516,893.86, and the charges to depreciation reserve should have been $308,870.96.

The department recommends that the Company should follow the procedure set forth herein with reference to drop wire losses which have been charged to maintenance account 607, "Station Removals and Changes." This method of charging to the reserve 40.62% of ordinary losses and the entire amount of losses resulting from the substitution of aerial cable for covered wire should be continued until the reserve of $1,068,841.53 as of December 31, 1931, has been consumed.

It will be noted from the foregoing discussion taken from the

accounting department's report that it considers that charges have been made to maintenance which should have been made against the depreciation reserve, for losses set out in the foregoing summary table, as follows:

1929	$49,871.05
1930	71,331.50
1931	187,668.41

The change in definition which has been referred to, though officially dating from January 1, 1929, was actually reflected in the Company's maintenance accounting during the greater part of 1928 although the Company continued throughout that year to accrue a depreciation reserve against the losses. The amount charged to maintenance in 1928 which, according to the accounting department's view, should have been charged to depreciation reserve was $38,558.

In addition to the question raised as to the propriety of charging drop wire losses to maintenance, which suggests strongly that 1928 maintenance expenses were excessive on this account by $38,558, a further question is raised by the testimony of Mr. J. G. Wray, an experienced telephone engineer employed by the Commission. It will be remembered that the increased cost of maintenance at the Milwaukee and Eau Claire exchanges accounts fully for the increased per station cost of 1931 over 1928 for the entire exchange system. Of course there were variations in maintenance at other exchanges but over all there was a decrease for those exchanges.

Testifying regarding Madison maintenance expense for 1931, Mr. Wray called attention to considerable amounts, related to various classes of property, which in his opinion were excessive. No testimony has been presented up to this time dealing with the question of whether maintenance costs in exchanges other than Madison, Milwaukee, and Eau Claire were abnormal and excessive in 1931 but there seems to be reasonable ground for anticipating that such may have been the fact. We mention this merely in connection with the fact that if maintenance per station for the entire system were reduced to the 1928 level, this would involve no adjustment on account of possibly excessive 1931 maintenance costs in the other exchanges. The amount of whatever excessive

cost there may be in the other exchanges is not measurable at this time.

Our study of the facts convinces us that maintenance amounting, per station, to not more than that of 1928 is entirely adequate. We question whether, even if that amount did not represent a completely normal condition at present price levels, there would be justification for allowing a higher level. The Company's exchange system has been losing subscribers for some months past and the necessity of rearrangements and changes is to some extent diminished.

It should be noted also that in applying the 1928 maintenance unit cost to average Company stations in 1931 no weighting has been given to the increased ratio of extensions to total stations. In the three principal main station classes of local business, local residence, and rural, the number of main stations increased from 259,625 at the end of 1928 to 271,386 at December 31, 1931, or 11,761. The percentage of increase was 4.5%. The extension stations associated with these main stations increased from 25,837 to 31,734, which is an increase of 23%. Private branch exchange stations also increased at a much more rapid rate than did the main station classes referred to.

Extension stations involving directly only additional subscribers' station apparatus, although to some extent they may have an influence, in much less proportion than their numbers, upon investment required in other classes of property, are not responsible for additional maintenance costs to the same extent as are main stations. There may be some error, therefore, in accepting a 1931 maintenance unit cost as high as that of 1928. In this case, however, we have not attempted to determine to what extent maintenance expenses per station might properly be reduced from the 1928 unit, although whether there should be further change will be a subject of inquiry as the investigation proceeds.

On the basis of all the foregoing considerations and facts, taking into account those instances where no adjustment has been made, we think there is no question that, in finding reasonable maintenance expenses per station equal to those of 1928, we are making an adequate allowance. Our only question is whether, in view of all the circumstances, the maintenance expense should

not be further curtailed. This, however, is left open for further inquiry as the investigation proceeds.

In placing maintenance expenses upon the 1928 basis we are providing for a reduction of maintenance cost of $600,751 below the 1931 expenses as shown in the Company's accounts.

The Commission therefore determines and finds from the facts and upon the considerations and findings heretofore set forth relating to maintenance expenses that maintenance expenses equalling those on a per station basis in 1928, or $2,326,232, are adequate for the purpose of determining reasonable rates for the duration of this order, and that maintenance expenses in excess of $6.35 per average Company station, as hereinbefore defined, are excessive and unreasonable.

Payments to American Telephone and Telegraph Company under License and Service Contract

Since January 1, 1929, in addition to dividends paid, the Company has paid its parent corporation a fee of 1½% of certain items of telephone operating revenues, as shown at page 18 of Exhibit C-1. During the three years ended December 31, 1931, these fees have been:

1929	$255,643
1930	262,502
1931	256,277

By a contract, dated December 31, 1930, between the two companies, it is provided that the fee shall be 2½%. This rate has been temporarily suspended by mutual agreement.

The so-called "license contract" contains nine sections which, because of their bearing upon this case, will be summarized:

Section 2 gives the Licensee the right to use all telephones and telephone devices, apparatus, methods and systems covered by patents owned or controlled by the Licensor. Such facilities may not be disposed of by the Licensee without the consent of the Licensor except to those licensed by the Licensor.

The Licensee shall be saved harmless from all actions charging infringement of patents.

Section 3 provides that the Licensor will prosecute research, investigational and experimental work "to improve telephone service and to promote safety, economy and effi-

ciency in the equipment, construction and operation of the telephone plants of the Associated Companies of the Bell System, and will direct development work by others." The Licensee is to have the right to use the results of such efforts by the Licensor.

Section 4 provides that the Licensor will make adequate arrangements for the manufacture of facilities covered by patents which it owns or controls and that the Licensee may purchase such facilities for use in its territory and subject to certain provisions.

Section 5 provides that the Licensor will furnish the Licensee:

(a) "Advice and assistance in general engineering, plant, traffic, operating, commercial, accounting, patent, legal, administrative and other matters pertaining to the efficient, economical and successful conduct of said business of the Licensee."

(b) Advice and assistance in financial matters.

(c) Assistance and cooperation in the adoption of measures to protect and preserve the health and promote the well being of employees of the Licensee and to conserve "the high quality of its service to the public through the maintenance of a stable, contented and efficient personnel."

Section 6 provides that the Licensor will maintain continuously an organization of specialists in the various branches of work required to be done by it in rendering the services. The staff is to be "of such numbers and possessed of such knowledge and experience as will enable said work to be so done as to relieve the Licensee from the necessity of attempting to perform said work for itself."

Section 7 stipulates that the Licensor will maintain or cause to be maintained proper connections between the telephone system of the Licensee and other Associated Companies of the Bell System.

Section 8 provides that the Licensee shall have the right:

(a) To give its patrons and those of its connecting Companies within its territory the privilege of using, upon payment of the regular tolls, the connections with patrons of other Associated Companies of the Bell System.

(b) To extend to its connecting companies within its territory the benefit of such engineering and other technical advice and information with respect to construction, mainten-

ance and operations as the Licensee may receive from the Licensor.

"The Licensee shall not directly or indirectly connect with the lines of the Licensor or its appointees any telephone facilities which in the judgment of the Licensor would unduly impair the quality of the service."

Section 9 provides:

(a) For a mutual use of the rights of way, similar franchises, and other facilities of the Licensor and Licensee, in so far as the circumstances and interests of each may permit, for telephone lines. Each shall pay to the other a prorata share of the cost of constructing and maintaining the facilities used jointly or such other compensation as may be agreed upon.

(b) That "the Licensor reserves the right to use telephones on lines connecting places in the territory of the Licensee with other places in said territory which the Licensee is not authorized to connect or with places outside said territory, or connecting places outside said territory with each other."

(c) The Licensee will permit the Licensor to connect its lines with those of the Licensee in order to establish through trunk lines for communications and will make or permit to be made switchboard connections for this purpose. As compensation, the Licensee will take a share of the through toll (terminal expenses being first deducted) prorata according to distance.

(d) "The Licensor may enter the offices, connect with the exchanges of the Licensee any lines to points without the territory of the Licensee or to points within said territory which the Licensee is not authorized to connect. . . . The Licensee will permit its patrons to use such lines and by its own operators will handle such communications to and from its patrons." . . . If the Licensor is not satisfied with the service of the Licensee, it may establish its own offices and trunk and radiating lines.

Section 10 provides that:

(a) The Licensee will cause its exchanges to route, over the lines of the Licensor and of such other parties as the Licensor may appoint, all communications outside the Licensee's territory, or to points within said territory which the Licensee is not authorized to connect.

(b) The Licensee shall keep and furnish an account of each such communication and shall collect and pay over to

the Licensor or its appointees, the tolls for transmission beyond the exchange of the Licensee.

(c) The toll revenues shall be shared.

The Commission will not consider, at this time, all the questions raised by a careful reading of the contract, nor will it review all the facts bearing upon it and the reasonableness and propriety of the charges made against Wisconsin Telephone Company, which we have heretofore questioned. Without making a final determination of the reasonableness and propriety of the charges, we will consider the matter of charging the entire fee as an operating expense.

The alleged benefits relate not only to the current operations of the Wisconsin Company but also to the construction and installation of its plant and equipment. This clearly indicates that a part of the license contract payments should be capitalized. The most equitable basis now available for an apportionment of the fees paid is the aggregate of (a) the total additions to the fixed capital and (b) the operating expenses of the Company. There will be included the gross additions to all fixed capital accounts except general equipment and intangibles. Thus, there will be comprehended the additions to the direct operating plant and equipment, such as land, buildings, central office and station equipment, overhead and underground plant. All operating expenses will be included except the license fee itself, uncollectible revenues and rentals paid. Further consideration may warrant the exclusion of depreciation, taxes, and of certain general and miscellaneous expenses. In that case the amount of the license payment treated as chargeable to operations will be reduced below the amount so treated in this opinion.

In the *Bogart Case*, 17 W.R.C. 524-553, in referring to that portion of the then current license fee which covered services other than the furnishing of receivers, transmitters and induction coils, the Commission considered the question of its division between operating expense and fixed capital and stated:

> "Part of the services furnished by the American Company relate to the construction work of the Wisconsin Company and part to the operation and maintenance of the operating systems."

After discussing an apportionment based on relative expenditures for operation and maintenance and for construction the Commission said, p. 554: "An apportionment of this item on some such basis would seem to be fair under the circumstances."

The following summary shows the expenditures for the purposes outlined above, for the years 1929, 1930 and 1931, divided between exchange and toll in accordance with the Company's allocation of such construction and operating costs.

	1929	1930	1931
Exchange System:			
Gross additions to fixed capital	$ 5,357,959	$ 8,569,889	$ 6,068,485
Operating expenses	10,154,456	11,053,292	10,797,502
Total exchange system	$15,512,415	$19,623,181	$16,865,987
Toll System:			
Gross additions to fixed capital	$ 2,237,568	$ 5,260,429	$ 2,533,496
Operating expenses	3,635,372	3,926,657	3,829,670
Total toll system	$ 5,872,940	$ 9,187,086	$ 6,363,166
Entire Company:			
Gross additions to fixed capital	$ 7,595,527	$13,830,318	$ 8,601,981
Operating expenses	13,789,828	14,979,949	14,627,172
Total gross additions to fixed capital and operating expenses	$21,385,355	$28,810,267	$23,229,153

PER CENT OF EACH THE GROSS ADDITIONS TO FIXED CAPITAL AND OPERATING EXPENSES, TO THE TOTAL OF THE GROSS ADDITIONS TO FIXED CAPITAL AND OPERATING EXPENSES FOR THE EXCHANGE AND TOLL SYSTEMS RESPECTIVELY

	1929	1930	1931
	%	%	%
Exchange System:			
Gross additions to fixed capital	34.54	43.67	35.98
Operating expenses	65.46	56.33	64.02
Total	100.00	100.00	100.00
Toll System:			
Gross additions to fixed capital	38.10	57.26	39.82
Operating expenses	61.90	42.74	60.18
Total	100.00	100.00	100.00

When the foregoing percentages are applied to the portions of the total license contract payment applicable to the gross exchange and toll revenues, respectively, it is found that these payments are to be segregated as follows:

	1929	1930	1931
Charge to:			
Exchange System—			
Gross additions to fixed capital	$ 64,206	$ 84,242	$ 69,629
Operating expenses	121,684	108,664	123,892
Total exchange system	$185,890	$192,906	$193,521
Toll System—			
Gross additions to fixed capital	$ 26,576	$ 39,851	$ 24,989
Operating expenses	43,177	29,745	37,767
Total toll system	$ 69,753	$ 69,596	$ 62,756
Total	$255,643	$262,502	$256,277

The charge to exchange system operating expenses in 1931 on account of license payments was $193,521. The amount of the license fee paid which would have been charged to operating expenses on the basis of proration which we have discussed would have been $123,892. That is, the excess charge measured as outlined above amounted to $69,629, not giving any consideration to possible adjustment of the total amount of the license payment which the Commission is not in a position to determine at this time.

Expense of Depreciation Defined

The Uniform System of Accounts for Telephone Companies, as prescribed by the Interstate Commerce Commission, defines expense of depreciation as:

(a) The losses suffered through the current lessening in value of tangible property from wear and tear (not covered by current repairs).
(b) Obsolescence or inadequacy resulting from age, physical change, or supersession by reason of new inven-

tions and discoveries, changes in popular demand, or public requirements, and

(c) Losses suffered through destruction of property by extraordinary casualties.

The Classification further provides that,

> The rate of depreciation should be fixed so as to distribute, as nearly as may be, evenly throughout the life of the depreciating property the burden of repairs and the cost of capital consumed in operations during a given month or year, and should be based upon the average life of the units comprised in the respective classes of property.

The Wisconsin Company has kept its accounts under the Uniform Classification of Accounts prescribed by the Interstate Commerce Commission since January 1, 1913. Under this classification, the cost of capital consumed in operations is charged to expenses and credited to a Reserve for Accrued Depreciation account. The amount of the charges to account 608, Depreciation of Plant and Equipment, measures the extent to which the Company has been reimbursed, by charges against the patron for property consumed in operations, whether or not actually retired from service. The amount in Account 102, Reserve for Accrued Depreciation, measures the extent to which the Company has been reimbursed for property consumed in operations, but not yet retired from the plant account.

Expense of depreciation is a cost of operations just as surely as the cost of labor and materials. It cannot be computed with the same exactitude, but reasonable approximations of depreciation expense can be made which are fair both to the Company and to the consumer.

Method of Accruing Depreciation Expense

The Wisconsin Company computes depreciation expense by the straight-line method of depreciation accounting. Under this method, the service value of property (that is, its cost less the net salvage realizable on retirement) is spread in equal annual charges to operating expenses during the estimated service life of the property. This system has been followed since January 1,

1913, at the latest. From January 1, 1921, and subsequent thereto, the Company computed depreciation expense by applying depreciation rates to the several property accounts. From January 1, 1913, to December 31, 1920, depreciation expense was computed by applying a composite rate to the total of all depreciable property accounts. The evidence shows that these composite rates were based on separate rates for each class of property.

Composite Rates of Depreciation Expense

The amount of depreciation expense (Account 608), the amount of plant on which accrued, and the composite depreciation rates for exchange properties are shown in the following table for the years 1913 to 1931, inclusive:

Year	Exchange		
	Average plant	Depreciation expense	Composite rate
1913	$ 9,248,111	$ 697,069	7.54
1914	10,059,242	758,488	7.54
1915	10,659,508	803,208	7.54
1916	11,269,200	766,367	6.80
1917	12,196,104	765,810	6.28
1918	13,903,454	751,006	5.40
1919	14,795,292	875,241	5.92
1920	15,942,826	734,201	4.61
1921	17,808,439	858,682	4.82
1922	19,917,778	965,141	4.85
1923	22,294,432	1,082,427	4.86
1924	25,576,369	1,230,305	4.81
1925	29,573,335	1,399,416	4.73
1926	32,520,968	1,533,916	4.72
1927	35,095,008	1,650,114	4.70
1928	38,981,468	1,846,903	4.74
1929	37,760,321	1,756,667	4.65
1930	42,775,222	1,963,144	4.59
1931	46,884,002	2,145,729	4.58

Average plant, as used in the table, includes those accounts which were classed as depreciable property in computing the depreciation expense charged to the operating expense account, Number 608. In 1929, 1930, and 1931, station installations, interior block wires and drop wires were excluded because no depreciation expense was accrued thereon. In prior years, these

accounts are included in total, although but a small portion was considered as depreciable.

Depreciation Expense and Component Rates, Year 1931

In the following table, the exchange system depreciation expenses for the year 1931, together with the average amounts of plant on which accrued and the rates of accrual, are shown for each property account. The total exchange depreciation expense of $2,145,729 shown here differs from that of $2,162,477 shown by the Company's books, due to the fact that $16,748 has been transferred from exchange depreciation expense to toll depreciation expense. This adjustment arises from a correction of the proration of depreciation expense on central office telephone equipment which the Company apportioned between exchange and toll based on the total investment in exchange and toll central office telephone equipment. Since the rates on manual and dial equipment differ and the respective amounts of the equipment carried in exchange and toll investment are not proportionate, this resulted in an excessive charge to exchange depreciation expense by the Company's method.

Class of Property	Exchange		
	Average plant	Depreciation rate	Depreciation expense
		%	
Buildings	$ 5,789,232	2.3	$ 133,152
Central Office Telephone Equipment—Manual	7,749,591	7.5	581,219
Central Office Telephone Equipment—Dial	2,799,354	5.0	139,968
Other Equipment of Central Offices	325,365	7.5	24,402
Station Equipment:			
Station Apparatus—Total	4,731,844	5.0	236,592
Private Branch Exchanges—Total	1,623,142	5.7	92,519
Booths and Special Fittings	195,776	4.1	8,027
Portion of Station Equipment Applicable to Toll Property	(*43,268)	3.9	(1,698)
Pole Lines	3,394,202	6.0	203,652
Aerial Cable	4,700,239	4.7	220,911
Aerial Wire	† 749,920	8.9	66,743
Underground Conduit	6,848,240	2.1	143,813
Underground Cable	6,908,061	3.4	234,874
Submarine Cable	141,369	4.5	6,362
Office Furniture and Fixtures	511,348	6.2	31,704
Interest During Construction	441,222	4.7	20,771
Public Address and Radio Broadcasting Equipment	13,591	20.0	2,718
Unappraised Property Purchased	85	4.7	4
Depreciation Expense Undistributed			(4)
Total	‡$46,879,313	4.58	$ 2,145,729

*Includes toll station installations also.
‡Average plant by accounts off $4,689 with average total plant. Accounted for in part by station installations included in station equipment.
†Line wire only—excludes drop wire.
Parantheses denote deduction.

Service Lives, Net Salvage Percentages, and Depreciation Rates

The service lives, estimates of net salvage percentages and depreciation rates for classes of exchange property developed by the Company in 1931, and used currently, are shown below:

Class of Property	Average Service Life (years)	Percentages			Depreciation Rate for Retirements	Allowance for Extraordinary Repairs	Total Depreciation Rate
		Gross salvage	Cost of removal	Net salvage			
Buildings	30			30	2.3	0	2.3
Manual Central Office Telephone Equipment	12	15	5	10	7.5	0	7.5
Dial Central Office Telephone Equipment	18	15	5	10	5.0	0	5.0
Other Equipment of Central Offices	12	13	3	10	7.5	0	7.5
Station Apparatus	6	70	0	70	5.0	0	5.0
Private Branch Exchanges	9.5	48	2	46	5.7	0	5.7
Booths and Special Fittings	11	60	5	55	4.1	0	4.1
Exchange Pole Lines	20	17	32	(15)	5.7	.3	6.0
Exchange Aerial Cable	18	30	15	15	4.7	0	4.7
Exchange Aerial Line Wire	15	0	15	(15)	7.7	1.2	8.9
Exchange Underground Conduit	48	0	0	0	2.1	0	2.1
Exchange Underground Cable	22	35	10	25	3.4	0	3.4
Exchange Submarine Cable	20	20	10	10	4.5	0	4.5
Furniture and Fixtures	12	25	0	25	6.2	0	6.2
Shop Equipment	7	30	0	30	10.0	0	10.0
Store Equipment	15	5	0	5	6.3	0	6.3
Stable and Garage Equipment	6	12	0	12	14.7	0	14.7
Tools and Implements	6	40	0	40	10.0	0	10.0
Public Address System and Radio Broadcasting Equipment					20.0	0	20.0

Parentheses denote negative net salvage, i.e., a cost of removal in excess of gross salvage.

In its application for an increase in rates at the Madison Exchange, the Company estimated depreciation at the rate of 7% per year, which rate was applied not only to depreciable property, but to station installations, interior block wires and drop wires, retirements of which are not charged to the depreciation reserve. Furthermore, the Company applied this rate to the property at the end of the year rather than to the average amount in service during the year. Actually, the Company was requesting an effective rate of depreciation of 8.12% per annum based upon average fixed capital subject to depreciation accounting.

The absurdity of such a rate is readily demonstrated by its application. If a rate of 7% per annum had been used from 1913 to 1931, inclusive, as the composite rate of depreciation for exchange property, including therein station installations, interior block wires and drop wires, but based on average depreciable fixed capital, i.e., on amounts of fixed capital less than the basis used by the Company in the Madison case, a reserve of $22,466,987 would have been accrued as of December 31, 1931, which is 46.1% of the ledger value of exchange property as of that date. This compares with the actual reserve of $13,923,619 which was accrued, of which practically all of the accruals from 1913 to 1931 resulted from the application of rates determined by the Company as the result of very detailed studies. There is strong indication that even aside from the reserve accrued on certain classes of property hereinafter discussed, the actual reserve balance of $13,923,619 is much higher than necessary. Clearly, the rate of depreciation expense allowance requested in the Company's Exhibit 2 is very much in excess of what should normally be accrued to cover the cost of capital consumed in operations. The problem now arises as to what does constitute a fair provision for depreciation expense. To determine this, it is necessary to consider the rates for the various classes of property.

Depreciation Rate for Buildings

The Company currently uses a rate of 2.3% for the buildings account. This rate was developed in 1931 by a study of each building in which the year of retirement from service, the future construction additions and the future retirements were estimated. The future additions to the buildings were given weight in esti-

mating the average service life of each building. The effect of this is to depreciate the present investment in buildings, not over the life which existing structures will attain, but over a shorter span of years as influenced by the additions estimated to be made in the future which will have a shorter life than the present investment. Expressed in another way, it is depreciating now an investment which has not yet been made. This is a matter to which the Commission plans to give further attention in reaching a conclusion in the permanent case.

The record at this time does not show the details whereby an adjustment for this condition may be made. Pending the ultimate findings as to depreciation expense on buildings, the rate used by the Company of 2.3%, based on a composite life of 30 years and 30% net salvage, has been used.

Depreciation Rate for Exchange Manual Central Office Equipment

In its 1931 study, the Company developed a depreciation rate of 7.5% for manual central office telephone equipment, based on a service life of 12 years, and net salvage of 10%. The rate on other equipment of central offices was the same. Prior to 1931, a rate of 5.7%, based on a 15-year service life and 15% net salvage, had been used for the total of central office equipment (Accounts 221 and 222) for a period of 10 years.

The rate of 7.5% developed by the Company in the study of 1931, was estimated without segregating the property as between toll and exchange investment. Hence, the rate is a composite applicable to the combined total of exchange and toll central office equipment. It appears that a separate rate should have been developed for exchange manual central office telephone equipment, due to the fact that the exchange investment has been affected to a different degree by the influences affecting service life. This is shown by the fact that a turnover study (a method used by the Company) made by the Commission's staff from Exhibits C-23, C-24, and C-25, applied to the book investment in exchange manual central office equipment (including, also, other equipment of central offices) for the period ending December 31, 1931, indicated an adjusted turnover period of approximately 14 years, while for the toll investment, an adjusted turnover period of 6.7 years was indicated.

The more rapid growth of the investment in toll manual equipment has had its effect on the service life indications of the Company's study. The average annual rates of growth of exchange and toll equipment have been:

Period	Rate of Growth		
	Exchange	Toll	Composite
	%	%	%
1913–1931	9.45	18.4	11.5
1921–1931	7.9	22.7	11.5

The Company has estimated service life of manual central office telephone equipment by the forecast method, which, in general, consists of determining the average realized life at various ages of the original installation, estimating the maximum age to be attained by the original installation of the present equipment, and estimating the service life of the present equipment based on the service life realized in the past at the same age as the estimated maximum age to be attained by the original installation of the present equipment. This is a method used by the Company.

It is fundamental that the faster the rate of growth in central office telephone equipment, the greater the differential between average realized service life and the maximum age of the first installation. Since the toll investment has grown at a faster rate than exchange, the inclusion of the investment in toll equipment with the exchange investment in the figures used by the Company in estimating service life, caused a lower service life to be developed than should be used for exchange manual equipment.

Further evidence of the differences existing in the past as to the realized depreciation on exchange and toll central office equipment is given by the reserve ratios on each class of equipment during the past 10 years, as shown in the following table:

December 31	Per Cent of Reserve to Ledger Value of Property	
	Exchange	Toll
1921	39.6	43.1
1922	34.9	39.8
1923	38.9	33.1
1924	35.8	29.5
1925	33.8	24.4
1926	36.5	25.7
1927	36.8	26.6
1928	39.8	17.7
1929	42.9	22.1
1930	39.6	3.3
1931	*40.1	*1.2

*Reserve ratio if rate of 5.7% which was used from 1921 to 1930, inclusive, had been used in 1931 instead of 7.5%.

During the period from 1921 to 1931, the investment in exchange manual central office equipment increased from $3,715,425 to $7,995,262, or at an average annual rate of 7.9%. Even with this growth, the percentage of the reserve to the ledger value of the property was maintained. On the other hand, the toll reserve ratio decreased from 43.1% in 1921 to 1.2% in 1931. During this period the toll investment increased from $624,864 to $4,851,768, or an average annual rate of 22.7%.

Another factor which is of importance in estimating the depreciation expense of exchange manual equipment is the growth of the investment therein necessitated by increased demand for telephone service. It is stated by the Company that inadequacy is one of the important factors causing the retirement of central office telephone equipment. (See *Depreciation Charges of Telephone Companies*, 177 I.C.C. 351, 383.) Growth of telephone business, as measured by the number of stations, the number of lines and the calling rate, has a marked influence on the amount of central office telephone equipment necessary to fulfill service requirements. With no growth in service requirements, inadequacy in central office telephone equipment would be eliminated as a factor to be considered in depreciation expense.

At the present time, there is not only no growth in service requirements, but an actual decrease, whether measured by the number of stations, the number of working lines, or by the vol-

ume of local calls. We find that this decrease operates to lengthen the service life of exchange manual central office telephone equipment.

Due consideration being given to the evidence presented in the case, it is found that no increase in the rate of depreciation of exchange manual central office equipment over that used by the Company from 1921 to 1930, inclusive, is necessary. Accordingly, depreciation expense on this class of property has been computed at 5.7%, this rate being applied to the total of exchange manual central office telephone equipment and exchange other equipment of central offices.

Depreciation Expense on Station Apparatus

The Company developed a rate of 5% for station apparatus in the study of 1931, based on a service life of six years and net salvage of 70%. From 1921 to 1930, inclusive, the Company used a rate of 7.8%, based on a service life of 4½ years and net salvage of 65%.

A check of a depreciation rate may be made by its application, to see whether it covers more or less than the cost of capital consumed in operations. The following tabulation shows the amount of the reserve as of December 31, 1931, if depreciation had been computed at various rates:

1913 to 1931, Inclusive				Plus Reserve Jan. 1, 1913*	Reserve December 31, 1931	
Depreciation Accruals †		Net reserve charge per books	Excess of accruals over charges			
Rate	Amount				Amount	% of plant
2.5	$ 963,337	$ 943,955	$ 19,382	$ 20,003	$ 39,385	0.8
2.8	1,078,937	943,955	134,982	20,003	154,985	3.2
3.0	1,156,004	943,955	212,049	20,003	232,052	4.8
3.4	1,313,538	943,955	369,583	20,003	389,586	8.0
4.0	1,541,339	943,955	597,374	20,003	617,377	12.8
5.0	1,926,673	943,955	982,718	20,003	1,002,721	20.8
7.8	3,005,611	943,955	2,061,656	20,003	2,081,656	43.0

*Based on 3% of station apparatus account of $666,753 as of January 1, 1913. Actual reserve was approximately $240,088, or about 120 per cent of the service value of the station apparatus account as of January 1, 1913, if salvage is estimated at 70 per cent. Hence, actual reserve as of January 1, 1913, was not used, since the overaccrual would distort reserve ratios developed.

†Does not include reserves on purchased properties and other credits amounting to $79,755.

If the ratios as shown above are expressed as a percentage of the service value of the property (that is, its ledger value less the salvage realizable) the following percentages are developed:

Depreciation Rate	Per Cent Reserve of Service Value of Property with Salvage at		
	70%	76%	80%
2.5	2.7	3.3	4.0
2.8	10.7	13.3	16.0
3.0	16.0	20.0	24.0
3.4	26.7	33.3	40.0
4.0	42.7	53.3	64.0
5.0	69.3	82.5	104.0
7.8	143.3	179.1	215.0

It is apparent that the depreciation rate of 7.8% used by the Company from 1921 to 1930 was too high. Such a rate if applied uniformly from 1913 to 1931, inclusive, recovers more than 179% of the service value of the property if salvage be taken at 76%, the Company's experienced salvage after adjustment is made for changes in the price level. Thus, 7.8%, if applied from 1913 to 1931, inclusive, would have resulted in collecting from customers a reserve not only equal to the service value of the property at December 31, 1931, but far in excess of this. Any rates which result in reserves at December 31, 1931, which exceed, equal, or even come close to the ledger value less salvage of the property of the Wisconsin Telephone Company are obviously too high. This property is today functioning efficiently, and is by no means in need of immediate replacement. Thus, a rate of 5 per cent, the rate used currently by the Company, is also too high. If applied during the past 19 years it would have produced on December 31, 1931, a reserve of 20.8% of the ledger value of the property or 82.5% of its service value with salvage estimated at 76%.

Two factors may account for the depreciation rates on station apparatus used in the past, 7.8% and 5%, being too high. Service lives or salvage values or both of these factors were underestimated. Whatever the reason, it is apparent that depreciation rates were too high. This means that consumers of telephone service until 1931 had been paying rates based on de-

preciation charges more than twice as large as necessary, for if applied throughout the nineteen year period ending in 1931, they would have resulted in the accrual of reserves amounting to more than twice a reasonable percentage of service value.

The question now arises as to what is a proper depreciation rate for station apparatus. A rate of 3%, if used during the period from 1913 to 1931, inclusive, would have produced on December 31, 1931, a reserve of 4.8% of the ledger value of the property which is equivalent to 20% of the service value of the property if salvage is 76%.

Let us see if service life indications and salvage percentages support a rate of 3%.

The depreciation study made by the Company in 1931 showed service life indications of station apparatus by the turnover method (shown in detail in Part IV, Section 3, of Exhibit C-23) as follows:

Period Ending	Years
December 31, 1930	6.4
December 31, 1929	7.3
December 31, 1928	8.1

Prior to 1931 the Company was using a service life estimated for station apparatus of 4.5 years, which had been adopted in 1921, and was used until the end of 1930. Clearly, the 1921 estimate was too low and was a substantial factor in causing the overaccrual in the reserve on station apparatus.

Notwithstanding this and the further fact that studies previously mentioned showed service life indications of from 6.4 to 8.1 years, the Company adopted a service life estimate in the 1931 study of 6 years.

There was no necessity for the Company to have been so ultraconservative. Based on the indications of the Company's study, the zone of reasonableness as regards the service life of station apparatus, is covered by the span of from 6.4 to 8.1 years. In view of the overaccrual in the reserve on this property, a service life from the higher range of this zone might well have been selected. This would have resulted in the adoption of a service life estimate of 8 years. We therefore find that a service life estimate of 7½ years is reasonable and it is adopted.

The Company adopted a salvage estimate of 70 per cent in

the depreciation study of 1931. This appears to be too low. The past experience of salvage realized on station apparatus (as shown in detail in Part IV, Section 3 of Exhibit C-23) was as follows:

Period	Per Cent of Salvage Realized	
	Based on book figures for retirements	Based on retirements adjusted to price level of salvage
1913-1930	85.6	76.0
1921-1930	86.6	75.4
1926-1930	88.2	79.7

The salvage realized during the year 1931 was 76% of the book figure for retirements.

The Company has been wrong in its estimate of salvage during the 10-year period 1921 to 1930, when the 1921 depreciation rate was in effect. In the 1921 depreciation study, salvage was estimated at 65 per cent. The actual amount realized from 1921 to 1930, based on book figures, was 86.6% and based on figures adjusted to eliminate price level variations, it was 75.4%.

The same error in judgment appears to have been made in the 1931 study. Past experience shows that salvage of more than 70% has been realized. For 18 years it has been 76% and the immediate past 5 years showed 79.7%, both percentages being based on a uniform cost level.

In the face of this past experience, an allowance of 80% would not be unreasonable. Based on the amounts of salvage actually realized by the Company, it has been more than 80%. A salvage percentage near the mid-point of the zone of reasonableness, is 76%. This agrees with the percentage based on 18 years past experience, and is somewhat lower than that realized in the recent years.

Based on service life indications of 7½ years and salvage of 76%, a depreciation rate of 3.2% is indicated which is found to be reasonable.

Depreciation Expense on Private Branch Exchanges

The Company adopted a depreciation rate of 5.7% on this class of property in 1931, based on a service life of 9½ years, gross salvage of 48% and cost of removal of 2%.

The salvage estimate of the Company appears too low in view of the percentages of salvage realized in the past, which are shown in the following table:

Period	Salvage Based on Book Figures			Salvage Based on a Uniform Cost Level		
	Gross	Cost of removal	Net	Gross	Cost of removal	Net
1913-1930	73.4	1.3	72.1	*65.1	*1.2	*63.9
1921-1930	71.4	1.4	70.0	62.1	1.2	60.9
1926-1930	68.5	1.5	67.0	62.4	1.4	61.0

*1914 to 1930.

Consideration being given to the percentages of salvage realized in the past, it is concluded that a net salvage percentage of 60% is reasonable. This percentage, together with the service life of 9½ years shown by the Company's study, results in a depreciation rate of 4.2%. Accordingly, adjustment has been made in the depreciation expense for the difference resulting from the use of a rate of 4.2% instead of that used by the Company of 5.7%.

Depreciation Expense on Booths and Special Fittings

The Company adopted a depreciation rate of 4.1% for this class of property in 1931, based on a service life of 11 years, gross salvage of 60% and cost of removal of 5%.

The salvage estimate of the Company is very much less than that actually realized in the past. This is shown by the following table:

Period	Salvage Percentages per Book Figures		
	Gross	Cost of removal	Net
1913-1931	84.2	5.9	78.3
1921-1930	110.9	8.6	102.3
1926-1930	102.1	7.4	94.7

Indices were not available by which to adjust the above percentages to those based on a uniform cost level.

The record shows that net salvage on booths and special fittings has fluctuated markedly, ranging from 28.5% in 1915 to 167.2% in 1921, with the average for 19 years being 78.3 per cent. This is considerably higher than the estimate of 55% made by the Company.

It is granted that a salvage estimate for depreciation rate purposes will not be the same as the actual percentages of salvage realized from year to year. The latter fluctuates, for one reason, because price levels do not remain constant. Nevertheless, the estimate of salvage should be so fixed that it will approximate the mean of the salvage percentages realized during the life of the property, to the end that the depreciation rate developed will distribute the cost of the property consumed in operations, as nearly as may be, equally over the life of the property.

From the evidence it appears and we expressly find that a net salvage percentage of 70%, based on 75% gross salvage and 5% cost of removal, is reasonable. This percentage, together with the service life of 11 years estimated by the Company, results in a depreciation rate of 2.7%.

Depreciation Expense on Other Classes of Exchange Property

No adjustment has been made of the depreciation expense on other classes of exchange property, pending the final results of the examination of the Company's accounts. There are several of the property accounts, however, on which comment seems necessary concerning the depreciation expense.

Exchange aerial line wire is currently depreciated at a rate of 8.9 per cent, based on a 15 year life, zero gross salvage, and

15% cost of removal plus an allowance of 1.2% for extraordinary repairs. The property account is already depreciated over 113% of its service value. This means that the Company could retire all of its present exchange aerial line wire and the reserve would cover the entire retirement loss plus the cost of removal and still have an amount left in the reserve. Prior to the 1931 study, the Company used a composite rate for the exchange aerial wire account, from 1921 to 1930, inclusive, which included an allowance of approximately 13.3% for what is now classed as line wire. This rate was altogether too high, as witness the over-accrual in the reserve.

Office furniture and fixtures is another property account which appears to be overdepreciated. The Company now uses a rate of 6.2%, based on 12 years service life and 25% salvage. From 1921 to 1930, inclusive, a rate of 8% was used based on a 10 year life and 20% salvage. The salvage actually realized by the Company on retirements during the 19 years 1913 to 1931, inclusive, has been 33.7%, based on book figures and 28.9% for the period 1913 to 1930, inclusive, based on a uniform cost level.

Several of the general equipment accounts are overdepreciated, namely, general store equipment and general stable and garage equipment, with general tools and implements also having a reserve which is quite high if not actually overaccrued. The depreciation expense on these classes of property is charged to clearing accounts and from there apportioned to exchange and toll construction and operations according to the relative use of the equipment.

Stable and garage equipment, the largest of the equipment accounts, has a reserve of 91% of its service value as of December 31, 1931. From 1921 to 1931, a depreciation rate of 20% was used by the Company. Beginning in 1931 the rate was reduced to 14.7%.

Depreciation Expense as Adjusted for Year 1931

In the following table, the depreciation expense by classes of exchange property, based on rates which are found to be at least adequate, is computed:

DEPRECIATION EXPENSE AND COMPONENT RATES, YEAR 1931

Class of Property	Exchange		
	Average plant	Depreciation rate %	Depreciation expense
Buildings	$5,789,232	2.3	$ 133,152
Central Office Telephone Equipment—Manual	7,749,591	5.7	441,727
Central Office Telephone Equipment—Dial	2,799,354	5.0	139,968
Other Equipment of Central Offices	325,365	5.7	18,546
Station Equipment:			
Station Apparatus—Total	4,731,844	3.2	151,419
Private Branch Exchanges—Total	1,623,142	4.2	68,172
Booths and Special Fittings	195,776	2.7	5,286
Portion of Station Equipment applicable to Toll Property	(a)(43,268)	3.0	(1,298)
Pole Lines	3,394,202	6.0	203,652
Aerial Cable	4,700,239	4.7	220,911
Aerial Wire	(b) 749,920	8.9	66,743
Underground Conduit	6,848,240	2.1	143,813
Underground Cable	6,908,061	3.4	234,874
Submarine Cable	141,369	4.5	6,362
Office Furniture and Fixtures	511,348	6.2	31,704
Interest during Construction	441,222	4.7	20,771
Public Address and Radio Broadcasting Equipment	13,591	20.0	2,718
Unappraised Property Purchased	85	4.7	4
Depreciation Expense Undistributed			(4)
Total	(c)$46,879,313	4.03	$ 1,888,520

(a) Includes toll station installations also.
(b) Line wire only—excludes drop wire.
(c) Average plant by accounts off $4,689 with average total plant accounted for in part by station installations included in station equipment.
Parentheses denote deduction.
Note—Depreciation on toll portion of station equipment estimated to be at 3% rate, due to fact that some station installations, which are non-depreciable property, are included.

It will be noted that the depreciation expense for the exchange system shown in a preceding table, page 6, was $2,162,477 as taken by the Company for 1931, whereas the exchange system

depreciation expense on average fixed capital for the year 1931 as the fixed capital is carried by the Company in its accounts, as shown by the last preceding table was $1,888,520.

We therefore find that an annual provision for depreciation of $1,888,520 was ample for the exchange system depreciable property for 1931, this sum being $273,957 less than the Company's provision for that year, and we find that the depreciation rates as shown in the last preceding table are adequate rates to be applied during the period of this order.

Rentals and Amortization

The rental deductions for the year 1931 are comprised of:

	Total	Exchange	Toll
Rent for telephone offices	$ 66,689.62	$ 32,322.81	$ 34,366.81
Rent for conduits, poles and other supports	10,997.91	3,757.71	7,240.20
Rent for instruments and equipment	19,899.90	1,594.91	18,304.99
Miscellaneous rents	38,941.86	1,757.67	37,184.19
Amortization of intangible capital	38,923.19	38,923.19	----------
Total	$175,452.48	$ 78,356.29	$ 97,096.19

The Commission makes no adjustments of these amounts. However, the item identified as "Amortization of Intangible Capital," amounting to $38,923.19, is the amortization of duplicate plant at the Superior and Janesville exchanges resulting from property purchases. These amounts had been charged by the Company against its surplus; but, for the purposes of reporting its annual exchange expenses, they were treated as current expenses. The amortization, of $19,746, for the year 1931, of the duplicate plant at Janesville completes this amortization. Therefore, this amount will not be incurred in 1932 or thereafter. An adjustment will be made of the expense of 1931 on the basis of the cost in 1932.

Property in Excess of that Used and Useful

One of the important questions in this case to which it is difficult, at least at this time, to get a definite quantitative answer,

relates to the amount of plant in place, not presently used and useful. It is a characteristic of telephone properties, particularly in growing exchanges, that some amount of spare capacity must be provided in order that facilities may be available when needed. This is well illustrated by such classes of property as conduit, cable, central office equipment, and perhaps by other classes as well. To construct a property to meet only immediately present requirements, or even to construct one having spare capacity for only a very limited period in the future, would be uneconomical.

The fact that spare capacity must be provided, however, does not eliminate the question as to whether or not at any given time the system contains more than a reasonable amount of such currently unused plant.

Over a considerable period of years prior to the depression the exchange business of Wisconsin Telephone Company experienced a substantial growth each year. This growth trend has now been interrupted, and during the past year there has been a very considerable decline in the number of stations actively in service. The construction program of the Company appears to have been planned in anticipation of a continued rate of growth consistent with that of years prior to 1930, and to have provided facilities as measured by various units even beyond the general average prevailing over a period of years preceding 1930.

The Commission's Department of Rates and Research has compiled an exhibit which was introduced as Exhibit C-56, which shows the net gain in total stations over a period of years, not including stations purchased from or sold to other companies, as follows:

1919	16,775
1920	12,997
1921	11,000
1922	8,223
1923	17,302
1924	16,676
1925	16,879
1926	16,305
1927	15,311
1928	19,324
1929	17,913
1930	8,921
1931	2,266 loss
First 3 months 1932	2,584 loss

This exhibit also presented certain measures of plant capacity taken from the Company's annual reports by exchanges, filed with the Commission. The following summary shows significant changes in quantities of wire plant per station and per working exchange line:

	Exchange Wire Plant Per Station (pair feet)		Exchange Wire Plant Per Working Line (pair feet)	
	Milwaukee	All exchanges	Milwaukee	All exchanges
1925	9,778	7,873	15,478	12,728
1926	10,673	8,337	18,193	13,934
1927	10,80[illegible]	8,607	18,415	14,362
1928	10,875	8,845	18,725	14,765
1929	12,696	9,679	21,254	15,975
1930	14,064	10,413	23,450	17,112
1931	14,392	10,677	23,357	17,146
Percent of increase 1931 over 1925	47.19	35.62	50.90	34.71

These large increases clearly reflect the provision of conductor pairs over and above those actually in use, accompanying a considerable program of change from open wire to overhead cable, and from overhead to underground cable.

The Commission has had prepared from reports of Wisconsin Telephone Company or from data submitted in response to written requests, certain summaries which are of interest in the study of excess plant, although the results indicated must of course be used with great care when any attempt is made to express quantitatively in dollars the amount of excess plant. Even if it could be assumed that all portions of the property to which factors have been applied would contain the same indicated quantities of excess, it would not be proper to assume that the provision of a quantity of plant just sufficient to contain no excess spare capacity or excess unused plant could be measured in dollars by a figure having the same ratio to the total plant account as is borne by the ratio of the percentage of physical plant used and useful, to total plant. This is obvious because unit costs for the installation of smaller units of physical plant would in many cases be higher per unit capacity provided, than those for the installation of the plant as actually constructed.

We show in the following tabulation a computation of excess vacant premise stations (Vacant stations are instruments left on subscriber's premises when service is discontinued):

COMPUTATION OF EXCESS VACANT PREMISE STATIONS
WISCONSIN TELEPHONE COMPANY

Milwaukee Exchange

April 30	Company Stations*	Left-in Stations**	Per Cent
1927	133,315	1,198	0.899
1928	142,310	1,607	1.129
1929	152,236	1,813	1.191
1930	159,128	1,799	1.131
1931	166,429	7,481	4.495
1932	163,782	12,514	7.503
Average 1927-1930, inclusive			1.088
Excess vacant premise stations—April 30, 1932, in % of total (7.503% minus 1.088%)			6.415

All Other Exchanges

April 30	Company Stations*	Left-in Stations	Per cent
1927	179,759	1,529	0.851
1928	186,701	1,554	0.832
1929	198,268	2,384	1.202
1930	207,753	2,254	1.085
1931	214,928	4,913	2.286
1932	217,628	10,543	4.845
Average 1927-1930, inclusive			0.993
Excess vacant premise stations—April 30, 1932, in % of total (4.845% minus 0.993%)			3.852

*Main, P. B. X., Extensions, Private Line, and Vacant Premise Stations. Data compiled from Wisconsin Telephone Company monthly station reports and monthly reports Nos. 7 and 15.

**Milwaukee exchange data supplied by Wisconsin Telephone Company in letter of May 31, 1932. Data for "all other exchanges" derived by deducting the Milwaukee figures from total company data as shown in Wisconsin Telephone Company monthly report No. 15.

In the foregoing summary the number of Company stations shown includes the left-in stations. The summary is probably self-explanatory, but attention may be called to the fact that it indicates that in comparison with the average percentage of left-in stations for the first four years the percentage at April 30, 1932, in exchanges outside of Milwau-

kee was excessive to the extent of 3.852% of total stations. It should be noted that the table subdivides the data between those applicable to the Milwaukee exchange and those applicable to all other exchanges as a group. The excess percentage at April 30, 1932, in Milwaukee was materially higher than in the other exchanges. It is doubtless true that if the Company's construction had been planned in anticipation of conditions now existing, and particularly if it had anticipated a continuance of depressed conditions, substantially all of the fixed capital accounts would have stood at a lower level than that of the end of 1931. We do not hold that the percentage shown in the foregoing table as a measure of excess vacant premise stations in and of itself proves the existence of excess investment to the extent indicated by the figures which follow. We realize that if the percentages of excess vacant premise stations are to be used as measures of excess investment the application of those percentages to all classes of exchange property will overstate the amount of the real excess. We think, however, that figures developed in this way, as well as others which will be shown later, are worthy of consideration, provided that fairness and the best judgment possible are applied to their consideration.

For the Milwaukee exchange the application of the percentage of excess vacant premise stations to the exchange fixed capital accounts of December 31, 1931, gives an indication of an excess investment of $2,099,866, for the other exchanges the corresponding figure is $871,080, and for the entire exchange system $2,970,946.

Various other applications of these percentages have been made by eliminating certain of the fixed capital accounts, wherein the provision of quantities of plant or equipment to closely accord with the amount of business is relatively inflexible. The first of these applications excludes from the base, land and buildings and a prorate of interest during construction considered as being applicable thereto. On this basis the indicated excess amounts are:

Milwaukee exchange	$1,759,443
All other exchanges	800,398
Total exchange system	$2,559,841

The next application of the percentages has been made to the balances in accounts including central office equipment, station apparatus, and exchange distribution system investment plus the prorate of interest during construction considered applicable thereto. It is possible, of course, that the distribution of the interest during construction is faulty, but this will not materially affect the results. On this basis the indicated excess amounts are:

Milwaukee exchange	$1,686,606
All other exchanges	784,132
Total exchange system	$2,470,738

While it is true that the foregoing figures, as previously stated, no doubt overstate the amount of excess capacity using excess left-in stations only as a measure, it is also true that considerable parts of the plant, other than the subscribers' station apparatus itself, become unused on account of left-in stations. There is a direct relationship, faulty only to the extent that the average per station investment for all stations may not be the same as for the left-in stations, between the excess left-in stations and the unused fixed capital included in the station apparatus accounts. Using these accounts only—that is, Nos. 231-235 inclusive—we have indicated excess unused property as follows:

Milwaukee exchange	$291,316
All other exchanges	161,741
Total exchange system	$453,057

This plant is entirely idle, and generally speaking represents property for which expenditures do not have to be made until the time that service is required. That is, if none of the vacant premise installations had ever represented active stations, substantially none of the investment represented by them would appear on the Company's books. In addition to the amounts shown as representing excess investments in accounts 231-235 inclusive, certainly some substantial portion of investment in conductors, in distribution system, probably some portion of switchboard investment, and possible portions of other accounts, now represent idle property not presently used and useful. We have previously stated our conclusion that the number of dollars indicated as a measure of excess unused capacity by the application

of some of the methods suggested above, is more than the real excess investment, and it appears to us equally clear that the number of dollars shown by applying the factors of excess left-in stations to accounts 231-235 only is less than the true measure of excess investment, it being understood that in both cases the conclusions stated are related only to the use of this single factor so far as it may be accepted as an indication of excess property.

A somewhat detailed study of the figures reported by the Company dealing with pair feet of conductor per working line also supports our conclusion that there is a material amount in excess of a normal ratio of unused excess capacity. For example, a chart prepared from the reports of the Company covering all exchanges having more than 5000 stations at December 31, 1931, which had been continuously operated by the Company since 1917, shows that at the end of 1917 there were approximately 14,000 pair feet of conductor per working line. The approximate figures for the next six years were 13,000, 11,900, 12,400, 12,000, 12,300, and 12,700. It was not until 1924 that the pair feet per working line reached the 1917 level. Commencing with the year 1926 there was a rapid growth, continuing until the end of 1930 (19,603 pair feet per working line), following which there was a slight decline in 1931 (19,582 pair feet per working line).

It appears to us from this chart that the period from approximately 1918 to 1925 was a period in which expansion in plant facilities as measured by amount of conductor provided did not keep pace with the growth in business. It appears equally evident that the years from 1929 through 1931 constituted a period in which spare plant facilities were above the normal. It is admittedly difficult to determine from charts of this nature just the proportion by which the provision of facilities at any date varies from the normal because of difficulties in determining the proper location of the line of normal trend; but as nearly as we can determine, the excess facilities as measured by length of conductor at the end of 1931 for this group of large exchanges was on the order of 15% of the total length of conductor.

As might be expected the Milwaukee exchange, which constitutes a very substantial portion of the group of exchanges just referred to, exhibits very similar tendencies but with more pronounced variations. For example, at the end of 1917 the pair fee.

of conductor per working line for Milwaukee amounted to a little less than 16,000. By the end of 1921 the quantity was about 12,500, after which it appears to have regained approximately a normal position at the end of 1926. By the end of 1931 it had reached the figure of 23,357, previously shown, almost double the quantity at the end of 1921.

Similar studies have been made of the other exchanges in the group showing widely different results. For some of the exchanges there appears to have been little or no upward tendency in the number of pair feet per working line since about 1922. In others the great variations in the curve suggest errors in the reported data, as for example in the cases of Green Bay and Beloit over the period from 1924 to 1927. Still others exhibit a trend of rapid growth in recent years very similar to that of Milwaukee.

For the group of smaller exchanges—that is, those having less than 5000 stations—no detailed study has been made because in total they contain only one-eighth of the total length of conductor pair for the Company's exchange system.

We have previously indicated that the apparent excess mileage of conductor pair for the large exchanges as indicated by a chart covering the period from 1917 to 1931 was 15%. An examination of the group of large exchanges in which each exchange was given separate consideration results in an indicated excess of about the same percentage. It may be noted in this connection that in reaching the figure of 15% our staff gave no consideration to minor apparent excesses in individual exchanges, and that the apparent deficiencies which appeared in certain exchanges were extremely slight as compared with what was accepted as normal.

Here we must realize the serious inaccuracies to which we may be led if we conclude from the indicated percentages of excess length of conductor that comparable proportions of the property accounts which reflect the investment in distribution system can be held to represent an excess investment. We do not undertake to make any such finding, but it appears to us that the indicated percentages of excess provision of conductors substantiate the conclusion that there is a material overprovision of dis-

tribution system when related to present business, even after allowing for such amount of spare capacity as might be found over a long period of time. The exchange distribution system group of accounts contained over $25,000,000 of property at the end of 1931. If the percentage of excess indicated by the excess vacant premise stations were applied to this group of accounts and to the station apparatus group, the indicated excess investment would be something in excess of $1,800,000.

While it has been clearly demonstrated to our minds that there is a large amount of excess unused property, and although it appears that we might be justified in finding a minimum figure as a measure of such excess, we have not attempted to determine any such figure in this opinion.

It should be noted that the conclusion which we have reached with reference to adjusting the level of maintenance is further substantiated by the existence of unusually large amounts of spare facilities and the very definite indications of the abnormality of the amount of plant and equipment not currently in actual use.

Adjusted Income Statement

We have previously shown (p. 5) an income statement for the year ended December 31, 1931, for the Company as a whole showing the sources of the net income of $2,853,590 available for dividends and showing for the exchange and toll systems the operating revenues and expenses. In the light of the adjustments which we have made we can now restate the income account giving effect to those adjustments for the exchange system and to the proportionate adjustments of the license fee and of relief department and pension expense for the toll system. We are not prepared to express any opinion as to what, if any, other adjustments of toll expenses there should be.

In connection with the income account now stated, it should be borne in mind that the items there shown for license fees and for taxes are dependent for their amount upon revenues and are consequently subject to further adjustment in the light of the order which will be issued in this case.

WISCONSIN TELEPHONE COMPANY

ADJUSTED INCOME STATEMENT

Year Ended December 31, 1931

	Total	Exchange	Toll
Operating Revenues:			
Telephone	$17,507,976	$13,050,113	$ 4,457,863
Miscellaneous	579,545	441,497	138,048
Total	$18,087,521	$13,491,610	$ 4,595,911
Operating Expenses:			
Maintenance	$ 2,924,560	$ 2,326,232	$ 598,328
Depreciation	2,837,655	1,888,520	949,135
Traffic	3,862,008	2,697,883	1,164,125
Commercial	1,580,085	1,167,237	412,848
Relief Department and Pensions	377,122	283,625	93,497
General and Miscellaneous	454,946	349,163	105,783
License Fee	161,659	123,892	37,767
Total	$12,198,035	$ 8,836,552	$ 3,361,483
Taxes	1,658,680	1,146,862	511,818
Uncollectible Revenues	101,563	68,048	33,515
Uncollectible Revenues Adjustment	39,284	26,320	12,964
Rentals	136,529	39,433	97,096
Amortization of Intangible Capital	19,177	19,177	
Total	$14,153,268	$10,136,392	$ 4,016,876
Net Operating Income	$ 3,934,253	$ 3,355,218	$ 579,035
Non-Operating Revenues:			
Miscellaneous Rent Revenues	$ 4,234		
Dividend Revenues	2,736		
Interest Revenues	120,449		
Miscellaneous	4,543		
Total	$ 131,962		
Non-Operating Expenses:			
Rent Expense	$ 4,050		
Non-Operating Taxes	3,708		
Uncollectible Non-Operating Revenues	485		
Total	$ 8,243		
Net Non-Operating Income	$ 123,719		
Gross Income	$ 4,057,972		
Deductions:			
Interest on Funded Debt	$ 3,750		
Other Interest	183,774		
Amortization of Intangible and Landed Capital	(6,168)		
Total Deductions	$ 181,356		
Net Income	$ 3,876,616		

Summary of Expense Adjustments

The foregoing income statement contains the following adjustments of expenses for the year 1931:

	Decrease or (Increase)		
	Total	Exchange	Toll
1. Maintenance	$ 600,751	$ 600,751	$
2. Depreciation	257,209	273,957	(16,748)
3. Relief department and pensions	70,448	59,564	10,884
4. License fee	94,618	69,629	24,989
5. Amortization of intangible capital	19,746	19,746	
Total	$ 1,042,772	$ 1,023,647	$ 19,125

The maintenance adjustment reduces the exchange cost to a basis of $6.35 per station. The depreciation adjustment is for excessive amounts as previously developed. The reduction of relief department and pension costs gives effect to the payroll distribution of this item. The license fee is reduced in order to charge construction with a portion of the amounts paid to American Telephone and Telegraph Company. The reduction of amortization of intangible capital is by reason of the fact that the amortization of duplicate plant at the Janesville exchange is completed in 1931 and will not appear thereafter. This same adjustment increases the deductions from gross income by $19,746.

At this stage in the Commission's computations, no adjustment is made to taxes although a reduction of expenses, without a corresponding decrease in revenue, would increase taxable net income and thereby increase income taxes. This condition will be provided for later in this opinion and an appropiate adjustment made.

As a result of these reductions in expenses, exchange net operating income is increased from $2,331,571, as reported by the Company, to $3,355,218, an increase of $1,023,647. The toll net operating income is increased from $559,910 to $579,035, an increase of $19,125, and the total net operating

income is increased from $2,891,481 to $3,934,253, or an increase of $1,042,772 for both exchange and toll services.

JOINT USE OF EXCHANGE PROPERTY

In the foregoing restatement of the income we have given effect only to the adjustments which have previously been discussed. This does not result in showing in the adjusted statement of income the cost of performing the local service. What is generally referred to as the exchange property of the Telephone Company consists principally of land and buildings, central office equipment, pole lines, wires, cable, and conduit extending from the central office equipment to the subscriber's premises and the telephone and associated equipment on the subscriber's premises. The subscriber's telephone may be used either in connection with a local message completed within the exchange area and not subject to a toll charge or it may be used on a message exchanged between that telephone and a telephone in some other exchange, possibly even in a foreign country. Except for certain portions of the telephone equipment located within an exchange, the use of the equipment is common to both local and toll service. There are certain portions, such as the trunk lines between switchboards in cities having multi-office exchanges such as Milwaukee and Madison, which are not used in connection with toll messages.

The Company keeps its accounts under the regulations of the Interstate Commerce Commission in accordance with which property which is jointly used for toll and local purposes is, in general, charged to toll or local fixed capital accounts in accordance with its major use. For example, if a building is used to house both exchange and toll equipment and employees and the greater use of the building is for exchange purposes, the building will be carried in exchange system fixed capital accounts. Similarly, there may be certain classes of property carried on toll system books of which some portion is devoted to the exchange system.

The term "exchange system" should be understood to mean that property located within an exchange area not directly and solely used for toll, district or general company

purposes. The exchange system property, however, does have a use for toll purposes because it is used in handling the toll message between the subscriber's station and the point where the message is delivered to that class of property carried on toll system books. In general terms, it may be said that the exchange system property is used for toll purposes in handling the subscriber's message between his station and the connection to the trunk lines running from the local operator's position to the toll operator. Certain variations in toll operating practice may exist in individual exchanges but the subscriber's telephone, the line connecting that telephone with the local switchboard, the local switchboard itself, and associated equipment, and the building which houses it are used alike in connection with local calls and toll calls. The property accounting of the Company does not reflect that use. We do not make this statement critically but merely as a statement of the fact.

Not only is the exchange system property used jointly for local and toll messages but the cost of operating and maintaining the exchange applies to both local and toll messages. The exchange operator handles a call from the subscriber whether that call is destined for another telephone within the exchange area or for a distant point. Exchange repairmen are engaged in the repair of property which is used jointly for toll and local service. There is a coordinate use of the exchange system property and of the services of exchange system employees for both local and toll purposes.

The Commission holds that the coordinate use of exchange property, of the services of exchange employees, and the responsibility for giving rise to exchange system expenses should be shared by the local business and by the toll business. *Smith v. Illinois Bell Telephone Co.*, (1930) 282 U. S. 133. The fact that the toll business is ordinarily the smaller end of the total business handled within the exchange area does not affect the conclusion. If the toll business in some unusual exchange area were to be more than 50% of the total use of exchange property, it would appear quite clear that the burden of exchange expense should properly be shared by local and toll service. The mere fact that the toll business accounts

for the smaller portion of the use of exchange property does not alter the fact that that property is used for two quite distinct types of service, just as much of the property of a railroad system, for example, is used for both freight and passenger service.

In order to secure measures of the extent to which exchange property is devoted to toll use and of the extent to which exchange expenses are associated with that use, the Commission called upon Wisconsin Telephone Company to present studies of the situation. These studies as to the Madison exchange are embodied in exhibits presented in the Madison case by Witnesses Chandler and Crowell. The engineering firm of J. G. Wray & Company was engaged by the Commission to do certain engineering work in connection with the pending case and, among other things, the witness Hill, a member of the firm of J. G. Wray & Company, has presented studies of the use of Madison exchange property for local and toll purposes and segregations of property and expenses between the two classes of service. At a later point in this decision there will appear some comparison of the methods employed by the Company's witnesses and by Mr. Hill.

The detailed studies made by the Company's engineers and by the Commission's engineers were both limited to the Madison exchange. In a consideration of the local rate situation for the Company as a whole, it becomes important to determine what amount of the exchange property for the entire exchange system and what amount of exchange expenses are associated with the toll use of exchange system. In the absence of detailed studies now in progress covering other than the Madison exchange, which will take a number of months to complete, it becomes impossible to make the determination for the entire exchange system with the same degree of accuracy or assurance that has been employed in connection with the exhibits which have been presented. As a result we have attempted to determine for the purposes of this case not the exact amounts of property and expenses associated with the toll use of the exchange systems, but rather to apply bases founded on known conditions which

would result in assigning to the toll use amounts well below those which would probably be indicated by a complete study. This procedure is legally permissible where a temporary interim order is entered. It was so expressly held in the *New England Divisions Case*, 261 U. S. 184. In our opinion the amounts of exchange property and exchange expense which have been apportioned to the toll system for the Company as a whole are well within the limits which would be indicated by complete studies.

Apportionment of Exchange Property and Expenses Between Toll and Local Use—Madison Exchange

Messrs. Chandler and Crowell, witnesses for the Company who presented methods and figures leading up to segregation of the Madison exchange system expenses and fixed capital between local and toll service, and the Commission's witness, Mr. Hill, used methods which differed in some respects. As to certain data, Hill was able to make use of information compiled after the introduction of the Chandler and Crowell exhibits. The calculations of all three of these witnesses appear in detail in their exhibits and the transcript of their testimony so that it appears necessary to describe here only the general methods followed and to refer to the major differences between them.

The station equipment located upon subscribers' premises is used in making both local and toll calls and both witnesses have apportioned the investment in this class of property between local and toll on the basis of the time in which it is actually in use. For this purpose the principle which has been followed is that if a telephone instrument is in use in making local calls for 95 minutes during an average day and in use on toll calls for 5 minutes, the investment in it would be apportioned 95% to local and 5% to toll service. In the Company's accounts, however, the investment in station equipment is included in exchange capital because the major use of the equipment is for exchange purposes. The data for making the apportionment of the station equipment accounts was obtained from the records of routine observations by the Company, including peg counts of the number of calls handled in various classifications and holding time studies, having

for their purpose the determination of the length of time that subscribers' lines are in use in various kinds of calls. The most important difference in principle between the methods followed by the witnesses is in the treatment of calls from subscribers to the repair clerk, wire chief, chief operator, etc. Mr. Chandler, for the Company, considered such calls as local because they originate and terminate within the same exchange. Hill on the other hand considered them as related to the Company's service and therefore related to the toll and local services in the proportion of the total holding time on purely toll and local calls.

Private branch exchanges are used both for intercommunicating calls between stations on the subscriber's premises and for calls to the central office, which may be either local or toll. The relative amounts of these uses were determined from special peg count records and holding time studies, and again the difference between the witnesses is in the manner of application of the method rather than in the principle followed. There appears to be an error in Chandler's calculation as in determining the use of the private exchange switchboard for intercommunicating calls he added together the originating and terminating extension to extension calls, thus counting two uses of the switchboard for each intercommunicating call, whereas there is in fact but one use. The records which Chandler used included the results of observations at 159 PBX installations. The average result of these observations was applied to the Madison private branch exchanges. An analysis of the character of these installations shows that the average is not comparable with the average of Madison installations. Hill grouped the PBX installations upon which observations had been made and the installations to which the data were to be applied according to the number of stations served, and the types of installations, thereby securing more representative results.

Because property has been classified on the Company's books between toll and exchange according to its major use, certain corrections had to be applied to the book costs of outside plant accounts which show the investment in the lines from the subscriber's premises to the central office. Certain pole lines used principally for toll purposes are carried in the toll account but in fact also carry a limited number of exchange circuits. Conversely,

underground conduit and other property carried in the exchange account are used to some extent for toll purposes. Mr. Crowell, for the Company, made a correction for this situation, based very largely upon estimate. When Hill made his study there was available a detailed inventory of this property. After making these corrections both witnesses apportioned the exchange part of this property between toll and local uses upon the basis of the subscribers' line holding time. In connection with the determination of the local portion of the Madison exchange investment Mr. J. G. Wray, a witness for the Commission, testified that certain underground conduit and cable was installed for the use of the A. T. & T. Co. or was provided in excess of reasonable future requirements and eliminated the investment involved from the Madison local property. It is not necessary to discuss this deduction further at this time because as already indicated the results of these studies of the Madison property are being used in this opinion only as a measure of similar conditions for the state-wide exchange system and we do not consider it reasonable to assume that excess plant will be found to the same degree in other exchanges.

In connection with central office equipment we come to the first important difference in principle followed by the witnesses in making the apportionment between local and toll uses. As in the case of outside plant, adjustments in the book accounts were necessary because of the difference between the actual use to which units of equipment are put and the major use of the investment in the capital account in which the costs of these units are recorded. Here again Mr. Crowell, making his apportionment at an earlier date, was forced to depend upon estimate while Mr. Hill was able to use the results of an actual inventory. This inventory not only gave a more accurate segregation than Crowell had available but it brought to light a number of errors in the classification of the central office investment. While these errors were to some extent offsetting, the overall result of the correction is to increase the investment charged to toll accounts and to decrease that charged to exchange accounts. Having determined the investment in central office equipment which is used jointly for local and toll purposes, Crowell apportioned to toll the equipment which he considered would not be installed if the Madison ex-

change were isolated from the rest of the world and the central office had been constructed to handle purely local traffic. Hill on the other hand made his apportionment on the relative time in use of the equipment in handling local calls and toll calls. As an illustration, Crowell considered that the amount of subscribers' switchboard required for local and for toll use depended upon the amount of local traffic and toll traffic handled during the busy hour, as measured by the traffic units of work performed by the operators. He therefore apportioned the "A" board exclusive of answering jacks on the basis of traffic units. He considered the answering jacks on the "A" board as a part of the subscribers' line and apportioned them on the basis of subscribers' line holding time. Hill on the other hand apportioned the entire "A" board upon a holding time basis, part of it on total subscribers' line holding time and part upon calling subscribers' line holding time according to its use in making connections between subscribers. The occasion for this apportionment is to determine the fair share of the investment actually made by the Company which should be assigned to toll service, and the fair share to be assigned to local service and considered in determining rates for local service. The important consideration appears to be how equipment is used and how long jointly used equipment is in active use for local and for toll purposes respectively, rather than how much equipment would be in place if there were only local service and how much equipment if there were only toll service.

In connection with the power plant which supplies electrical energy for the operation of the exchange and toll systems, Mr. Crowell is again at a disadvantage because his work was done at an early stage of the investigation and before complete information had become available. Following the time when he apportioned this investment on the basis of subscribers' line holding time, a study was made of the actual use of energy drawn from the battery. With this battery drain study Hill was able to make a careful apportionment of the power plant investment according to the actual use of the energy furnished. He found that a considerable use of the power plant was for furnishing energy for A. T. & T. Co. telephone repeaters, carrier system, and telegraph. This was considered in his apportionment and compensation as shown on the Company's books was eliminated.

With the aid of the Company's inventory Hill found it possible to apportion central office cables, frames, racks, and miscellaneous equipment between local and toll largely on the basis of actual use instead of on the less accurate basis of subscribers' line holding time which had been used by Crowell in the absence of the detailed inventory.

Other equipment of the central office is apparently included with other items apportioned by Crowell on a holding time basis. This account represents rest rooms, cafeteria, etc., used by the operators, and was apportioned by Hill upon the basis of the time spent by operators in handling local traffic and toll traffic as determined from the assignment of operators to positions, and compilations of traffic units of work handled.

Madison is the headquarters of a district of the Company's organization. Office, garage, and warehouse space in the Company's buildings is therefore apportionable between the district and exchange operations, and that part apportioned to the exchange has been subdivided between local and toll service. Both Crowell and Hill apportioned the investment in land and buildings on the basis of the use of the space occupied for various purposes. The equipment occupying space having been apportioned by them upon divergent bases, it is difficult to make detailed comparisons of the results of the two apportionments. Generally speaking, Crowell apportioned the land and building accounts upon the basis of subscribers' line holding time, whereas Hill apportioned each building in accordance with the space used for various purposes and the toll and local percentages previously developed for the equipment, supplies or operating departments occupying the space. Similar differences are found in the apportionments of general equipment such as automobiles and trucks, tools, furniture, fixtures, etc.

Both witnesses carried their study of apportionments through operating expense as well as capital accounts. Both of them considered that the apportionment of maintenance expense should be in proportion to the apportionment of the property maintained. Hill made his calculations in greater detail, apportioning maintenance expense account by account on the basis of the apportionment of the corresponding classes of property, while Crowell

apportioned total maintenance expense as one sum on the basis of the allocation of the entire property.

Both witnesses apportioned traffic expense largely upon a basis of traffic units of work done by the operators in handling local and toll traffic. The principal difference between the two is in connection with the transmission power account and corresponds closely to the difference in treatment of the power plant capital account already described.

Hill's apportionment of commercial expense is based almost entirely upon the results of the examination of Company records by the Commission's accountants.

Application of Results of Madison Apportionment to State-wide Exchange System

Practically all of the exchange property of Wisconsin Telephone Company throughout the state is used jointly for local and toll service in much the same way that the Madison exchange property is used although the amount of use and the amount of labor involved in the several exchanges will vary.

Certain outstanding differences between the situation in Madison and in the rest of the state must be given consideration. Madison is an important toll center for the lines of both Wisconsin Telephone Company and American Telephone and Telegraph Company. Much more than a normal amount of building space is occupied by exclusively toll equipment such as carrier apparatus, telephone repeaters, telegraph equipment, etc., and the power plant is likewise subjected to an unusual amount of use for toll purposes. Madison is the headquarters of one of the Company's operating districts and the housing and storage facilities for the personnel, equipment and materials involved in district as distinguished from exchange operations result in less than the average proportion of land and buildings being used for strictly local purposes. The Commission's engineers found in the Madison exchange certain underground plant in excess of reasonable future requirements and certain plant assignable to A. T. & T. Co. uses. It is possible that similar situations would be found in other exchanges but in the absence of definite proof such an assumption is not justified. The importance of Madison as a toll center and

repeater station, of course, has a bearing upon this situation. Before taking the results of the Madison study as a yardstick for the rest of the system, it is therefore necessary to make suitable corrections for these factors.

In connection with central office equipment Hill found, as shown in Exhibit C-19, that 88.5% of the investment was allocable to local service and 11.5% to toll service. This percentage assigned to toll includes the portion of power plant assigned to A. T. & T. Co. uses. If we eliminate this portion of the power plant entirely and base the comparison upon the local and normal toll use, we find that 92.4% of the central office equipment account will be considered as local. This percentage relates the amount of central office equipment found by Hill to be local to the exchange book cost as adjusted as a result of the inventory previously described. If we relate the same figure for local equipment to the book cost actually appearing in the Company's accounting records, the percentage becomes 94.2.

With reference to other equipment of central offices there was also an adjustment in book cost as the result of an inventory which increased the figure used by Hill as a book cost and therefore reduced the percentage investment which he determined to be local. Relating the local investment as determined by Hill to the average book cost as taken from the Company's accounting records, increases the local percentage from 70.4 as shown in Exhibit C-19, to 74.4.

As to outside plant there was not only an allocation of investment to local uses but a certain part of the investment at Madison was regarded as being in excess of reasonable local requirements. It is not believed proper to reflect this deduction in the treatment of other exchanges and it is therefore necessary to subtract this deduction from the base figure with which the local investment is compared in order to obtain the percentages to be applied to system book costs in order to determine the portion of the system exchange investment to be apportioned to the local service. This correction must be applied to the accounts covering right of way, underground conduit, and underground cable. In the right of way account appearing in Exhibit C-19 at $12,611 for 1931, a deduction of $747 was made, leaving $11,864 as the amount actually apportioned between toll and local use, of which

$11,073 was considered as local investment. This change increased the percentage of the local portion from 87.8 as shown in Exhibit C-19 to 93.4. In the underground conduit account the deduction for excess plant was $61,442 and the amount actually apportioned between toll and local was $273,450 instead of $334,892 shown as the average book cost in Exhibit C-19. The local portion of $226,120 is therefore 82.9% of the total instead of 67.2% as shown in Exhibit C-19. The deduction for excess plant in the underground cable account was $21,373 and the figure actually apportioned between toll and local was $474,719 instead of $496,092 shown as the average book cost in Exhibit C-19. The local portion is therefore 96% of the amount actually apportioned rather than 91.8% as shown in Exhibit C-19.

In the case of station equipment there appear to be no conditions peculiar to Madison except that Madison undoubtedly has a larger proportion of private branch exchanges than the rest of the state outside of Milwaukee. Because of the intercommunicating use of PBX systems the percentage of local use of station equipment in Madison is probably somewhat higher than in the other exchanges excepting Milwaukee. No adjustment of this has been attempted.

In the land and buildings and general equipment accounts the percentage of property in the exchange which has been included in the local portion of the investment has been reduced by the fact that Madison is the headquarters of a district and a considerable part of the property in these two accounts located in Madison is used for district rather than exchange purposes. The percentages of these accounts to be considered as local have therefore been revised by comparing the investment allocated to local service with the investment previously allocated to the Madison exchange rather than with the total investment in exchange property. This adjustment raises the percentage of land to be allocated to local investment from 47.3, shown in Exhibit C-19, to 75.6, the percentage of building investment from 49.8, shown in Exhibit C-19, to 72.5, and the local percentage of general equipment is increased from 54.8, as shown in Exhibit C-19, to 66.8. These adjustments have resulted in a change of the percentage of property to be considered as local from those shown in the first column

of the following table, as determined for Madison, to those shown in the second column.

Account	Percentage Local	
	Madison exchange 1931 Exh. C-19	Statewide exchange system
	(A)	(B)
Exchange Right of Way	87.8	93.4
Land	47.3	75.6
Buildings	49.8	72.5
Central Office Telephone Equipment	88.5	94.2
Other Equip. of Central Offices	70.4	74.4
Station Apparatus	95.5	95.5
Station Installations	95.5	95.5
Interior Block Wires	95.1	95.1
Private Branch Exchanges	96.5	96.5
Booths and Special Fittings	95.1	95.1
Exchange Pole Lines	99.1	99.1
Exchange Aerial Cable	95.4	95.4
Exchange Aerial Wire	95.1	95.1
Exchange U. G. Conduit	67.2	82.9
Exchange U. G. Cable	91.8	96.0
General Equipment	54.8	66.8

The percentages applicable to local exchange service for the classes of plant as shown in column B of the foregoing table are approximately proportional to the relative amounts of local and toll traffic. Unless the holding times of toll and local calls in the Madison exchange differ materially from the corresponding average holding times in the remainder of the state, a fair indication of the relation of the percentages of property and expenses assignable to toll in the state outside of Milwaukee to the percentages of property and expenses assignable to toll in Madison can be obtained from examination of the numbers of toll and local calls handled. Exhibit C-83 shows that the toll traffic is a smaller proportion of the total traffic in Madison than in most of the seventeen other exchanges of somewhat comparable size. The proportion of toll to total traffic handled in the small exchanges is very much higher than in Madison. Taking all the exchanges in the state except Madison and Milwaukee, Exhibit C-83 shows that the ratio of toll messages and report tickets billed to total originating calls is 2.156% whereas for Madison this ratio is 1.513%. In Milwaukee the proportion of toll business is

lower than in Madison, being 1.040% for total originating calls as shown by Exhibit C-83.

The percentages in column B of the preceding table have been applied separately to the average 1931 book costs of the exchange property exclusive of Madison and Milwaukee, and to the average 1931 book cost of property in Milwaukee. The resulting local exchange portions of the property for Milwaukee and for all other exchanges except Madison were then modified to take account of variations in the relations of toll to total traffic. The percentage of toll to total property in Milwaukee was decreased in direct proportion to the relation that the percentage of toll to total traffic in Milwaukee bears to the percentage of toll to total traffic in Madison, these percentages being taken from Exhibit C-83. Similarly the local fixed capital for the other exchanges was adjusted upwards to give weight to the greater ratio of toll to total traffic in those exchanges as compared to Madison. The proportion of the Company's general prorate of Milwaukee land, buildings, and general equipment allocated by the Company to the Milwaukee, Madison and other exchanges was further apportioned to local use in each of the three groups by the application of these percentages for land, buildings, and general equipment. The results were then adjusted for differences in toll and local usage by the same method that was used for the fixed capital account above described. The local portion of the fixed capital accounts including the Milwaukee prorate for exchanges outside of Milwaukee and Madison, for Milwaukee exchange and for Madison exchange, as shown in Exhibit C-19, were combined to obtain the average local fixed capital for the Company for the year 1931.

There still remains to be made an allocation of operating expenses of the state-wide exchange system between local and toll service. This has been done by the application of the same methods that were followed for the Madison exchange.

Maintenance expense has been allocated in the same proportion as the property maintained, following the method applied to the Madison exchange by Mr. Hill. The maintenance expenses which we have found to be adequate for the exchange system of the Company as a whole were divided between local and toll services by the application of the fixed capital percentages shown

in the second column of the preceding table to the corresponding maintenance sub-accounts. This was done separately for each of the groups of exchanges, Milwaukee, Madison, and other exchanges. The results for each group were further modified for differences in local and toll usage in the same way that the fixed capital accounts were adjusted by the application of figures from Exhibit C-83.

As regards traffic expenses the Company has in its exchange reports made a separation between toll and exchange expenses largely on the basis of switchboard position hours except for operators' wages which are charged directly to toll in the case of operators working exclusively at the toll boards. The proportion of traffic expense charged to the exchanges by the Company represents operators' wages, and other accounts concerned with the operation of the exchange switchboards during both local and toll calls. A further apportionment of the exchange traffic expenses on the basis of the percentage of toll to total traffic units at the exchange switchboards is therefore proper and has been made. For this purpose the ratio of toll to total traffic units, shown in Hill's Exhibit C-6, has been used. In the case of operators' wages, the exchange expense as reported by the Company excludes an allowance for operating labor on "A-B" toll calls which was not excluded by Hill in the development of traffic unit percentages in Exhibit C-6. Adjustment of Exhibit C-6 has therefore been made consisting of deducting from the total exchange traffic units shown on Table 1 of the exhibit the allowance for "A-B" toll units given on Table 2. The resulting percentage for the year 1931 is 3.56% toll instead of 4.11% toll, as shown in Exhibit C-6. In the sub-account "Service Inspection" the Company has already in its report of expenses for each exchange excluded the entire portion chargeable to toll service. Adjustment of the change in the percentage applicable to transmission power has already been discussed. Elimination of the effect of A. T. & T. usage from the Madison study results in a percentage local of 91.9% for this account.

The resulting local traffic expenses for Milwaukee and for all other exchanges excluding Madison were then modified to take account of variations in the relations of toll to total traffic. The percentage of toll to total traffic expense for Milwaukee was de-

creased in direct proportion to the relation that the percentage of toll to total traffic in Milwaukee bears to the percentage of toll to total traffic in Madison, these percentages being taken from Exhibit C-83. Similarly the traffic expense for the other exchanges was adjusted upwards to give weight to the greater proportion of toll to total traffic in those exchanges as compared to Madison.

The Company's allocation of commercial expense between exchange and toll service has been accepted as shown in its reports. This results in disregarding the apportionment of exchange advertising and soliciting expense between toll and local service as made by Hill in his study in the Madison case.

The apportionment of capital and expense between toll and local service has been described, particularly as to the methods followed and as to the application of the Madison study to the state-wide exchange system. It will perhaps be well to summarize the results of this apportionment in the following paragraph and tabulation.

The average book cost, for 1931, of the property which the Company classified in its accounts as exchange was $53,677,230. This includes all of the so-called Milwaukee general prorate, amounting to $2,477,859, as a part of the Milwaukee exchange fixed capital. The Company has made an assignment of $672,224 of this general property to toll operations, thus leaving $1,805,635 for exchange operations. After a deduction of the $672,224 of the Milwaukee general prorate which the Company has apportioned to toll, there remains as the average of exchange system fixed capital, according to book figures and Company proration, the amount of $53,005,006. The result of the segregation of exchange system property, amounting to $53,005,006, is to allocate or apportion $47,988,710 to local exchange service and $5,016,296 to toll service. Of the operating expenses, current exchange maintenance which appears in a foregoing table (p. 71) dealing with adjusted income statement at $2,326,232, is divided so that $2,195,962 is assigned to local business, the balance being for toll purposes. Of the depreciation expense of $1,888,520, the local portion amounts to $1,726,107, and of traffic expenses of $2,697,883, the amount assignable to local business is

$2,595,432. No segregation has been made of commercial expenses, the propriety of dividing exchange advertising and canvassing between local and toll uses being discussed elsewhere. The general and miscellaneous group, including relief department and pension expense allowed, was divided on the basis resulting from the apportionment of the other classes of expenses mentioned. This results in assigning to local use $272,280 of the total exchange relief department and pension expense which was $283,625 and $335,197 of the exchange general expense which was $349,163. With this segregation of expenses we can now restate the adjusted income account for the Company as a whole and for the exchange and toll systems separately down to the item of net operating income.

We find that the methods used in assigning exchange system property and expenses to local and toll uses have resulted in assigning to the local use at least as much of property and expenses as are actually associated with such use and that the methods used, as outlined above, are reasonable.

The adjusted income account giving effect to the segregation is as follows:

WISCONSIN TELEPHONE COMPANY

ADJUSTED INCOME STATEMENT

Year Ended December 31, 1931

Giving Effect to Segregation of Exchange System Expenses Between Local and Toll Services

	Total	Local	Toll
Operating Revenues:			
Telephone	$17,507,976	$13,050,113	$ 4,457,863
Miscellaneous	579,545	441,497	138,048
Total	$18,087,521	$13,491,610	$ 4,595,911
Operating Expenses:			
Maintenance	$ 2,924,560	$ 2,195,962	$ 728,598
Depreciation	2,837,655	1,726,107	1,111,548
Traffic	3,862,008	2,595,432	1,266,576
Commercial	1,580,085	1,167,237	412,848
Relief Department and Pensions	377,122	272,280	104,842
General and Miscellaneous	454,946	335,197	119,749
License Fee	146,636	108,869	37,767
Total	$12,183,012	$ 8,401,084	$ 3,781,928
Taxes	1,547,478	1,125,321	422,157
Uncollectible Revenues	101,563	68,048	33,515
Uncollectible Revenues Adjustment	39,284	26,320	12,964
Rentals	136,529	39,433	97,096
Amortization of Intangible Capital	19,177	19,177	
Total	$14,027,043	$ 9,679,383	$ 4,347,660
Net Operating Income	$ 4,060,478	$ 3,812,227	$ 248,251
Non-Operating Revenues:			
Miscellaneous Rent Revenues	$ 4,234		
Dividend Revenues	2,736		
Interest Revenues	120,449		
Miscellaneous	4,543		
Total	$ 131,962		
Non-Operating Expenses:			
Rent Expense	$ 4,050		
Non-Operating Taxes	3,708		
Uncollectible Non-Operating Revenues	485		
Total	$ 8,243		
Net Non-Operating Income	$ 123,719		
Gross Income	$ 4,184,197		
Deductions:			
Interest on Funded Debt	$ 3,750		
Other Interest	183,774		
Amortization of Intangible and Landed Capital	(6,168)		
Total Deducations	$ 181,356		
Net Income	$ 4,002,841		

In the foregoing statement of adjusted net income, the amount of taxes was decreased because of two conditions: (1) In the computation of the license tax imposed by the State of Wisconsin on gross revenues, the amount of such revenue from exchange service has been reduced in the amount of $1,566,450 to give effect to the reduced exchange rates herein provided. (See p. 98) This reduced amount of exchange revenue subject to the license tax. (2) In view of the fact that the reduction of exchange revenues was less than the reduction of exchange expenses, the net income on exchange operations was increased, thereby causing an increase in income taxes. On the other hand, allowance has been made for an increase to 13¾% in Federal income taxes under the Revenue Act of 1932. In 1931, the Company paid 12%. It should be made clear that the revenues shown by the above income statement are those realized by the Company in 1931.

Even though allowance was made for a reduction of operating revenues, no further deduction has been made for losses due to uncollectible accounts. It is possible that a decrease in revenues will reduce the losses on uncollectible accounts. This has been given no weight.

Summary of Expense Adjustments due to Property Segregation and to Revenue Reduction

The foregoing income statement is after (a) adjustments for abnormal costs and costs as adjusted for other reasons, as explained in connection with the previous adjusted income statement, at page 71, (b) the segregation of previously adjusted exchange system expenses between local and toll services, (c) a ljustment of the license fee because of a reduction of $1,566,450 in the exchange service revenue and (d) a computation of taxes to give effect to an adjustment of net income resulting from the decrease in exchange revenues and expenses and an increase in toll expenses. (See p. 98) In summary, the adjustments based upon (b), (c) and (d) were as follows:

	Decrease or (Increase)		
	Total	Exchange	Toll
1. Maintenance	$	$ 130,270	$ (130,270)
2. Depreciation		162,413	(162,413)
3. Traffic		102,451	(102,451)
4. Relief department and pensions		11,345	(11,345)
5. General and miscellaneous		13,966	(13,966)
6. License fee	15,023	15,023	
7. Taxes	111,202	21,541	89,661
Total	$ 126,225	$ 457,009	$ (330,784)

When the adjustments, summarized above, are combined with those made in a previous section of this report, the total adjustments at this stage, as compared with the Company's reported or book figures, are:

Expenses	Decrease or (Increase)		
	Total	Exchange	Toll
1. Maintenance	$ 600,751	$ 731,021	$ (130,270)
2. Depreciation	257,209	436,370	(179,161)
3. Traffic		102,451	(102,451)
4. Relief department and pensions	70,448	70,909	(461)
5. General and miscellaneous		13,966	(13,966)
6. License fee	109,641	84,652	24,989
7. Taxes	111,202	21,541	89,661
8. Amortization of intangible capital	19,746	19,746	
Total	$ 1,168,997	$ 1,480,656	$ (311,659)

As a result of the above stated reductions in exchange expenses and increases in toll expenses, the following changes are made in net operating income as compared with the Company's book figures:

Net Operating Income	Total	Exchange	Toll
After Commission adjustments	$ 4,060,478	$ 3,812,227	$ 248,251
Per books	2,891,481	2,331,571	559,910
Increase over book amounts	$ 1,168,997	$ 1,480,656	$ (311,659)

Parentheses denote decrease in toll net income.

WHAT THE COMPANY WILL EARN UNDER THIS ORDER

In reaching our conclusions in this case we have dealt with the local system of the Company as if it were a separate entity. The toll and local services rendered by the Company are quite distinct in character, so much so in fact that, except to the extent that the exchange lines are used in connection with toll messages, the business could readily be handled by separate Companies. In fact, this is just the condition which is encountered at many points in the telephone business. Wisconsin Telephone Company generally has toll connections with independent companies operating in the state and a part of its toll traffic is both originated and terminated at exchanges which it does not own. The handling of the toll traffic in such cases has no relation whatever to any exchange business which the Company conducts. Wisconsin Telephone Company does not own toll lines extending outside of the state. It has been represented to the Commission at various times that toll traffic destined for points beyond the state is routed over lines of American Telephone & Telegraph Company for its interstate business, and therefore there is an actual handling of the traffic by two or more corporate entities.

Quite commonly the independent telephone companies in Wisconsin own no toll lines, and yet the connections which their subscribers may obtain for toll purposes are just as complete as are the connections which can be obtained by exchange subscribers of Wisconsin Telephone Company. Such independent companies receive a compensation for their services in handling the origination or termination of toll messages, although it has frequently been represented informally to the Commission that that compensation is not adequate to fully cover the expense incident to the use of exchange plant furnished by them in connection with toll business.

If the exchange and toll businesses and properties of Wisconsin Telephone Company, instead of being owned and operated by a single corporation, were owned and operated by distinct corporations, there could be no question as to what would be the proper basis for measuring the revenue requirements of each of the services. It could not be argued that the corporation operat-

ing the exchange system and furnishing the local service should be permitted to earn a higher rate on that business than would otherwise be necessary because the corporation owning and operating the toll lines might not have adequate earnings. Each business would have to stand on its own feet, and its revenue requirements would have to be measured by the facts relating to it.

The mere fact that there is a common ownership and operation of exchange and toll facilities does not alter the case. The nature of the respective businesses is the same as if they were conducted by separate corporations. The reasonableness of rates to exchange subscribers should be measured by the same standards, and neither exchange nor toll service should be compelled to carry any burden resulting from an inadequacy of revenues in the other branches of the service. To permit the general schedule of rates for local service to carry a part of the cost of the toll service would be to introduce a serious element of discrimination because of the fact that the use of toll service by various subscribers differs widely. If the general schedule of rates for local service were to carry some burden to make up for a shortage of revenues on the toll system, it would mean that subscribers having little or no use for toll service would be continually required to pay for a service which they would not use. The element of discrimination would be serious.

In connection with this temporary order we have made no finding as to the value of the property devoted to local service. Certain figures have been exhibited as to average fixed capital devoted to that service, but we wish it clearly understood that we have made no findings as to fair value. It is our conclusion that if local rates are now fixed at a point which should enable the Company to pay a dividend of 6% on that portion of its common stock which is applicable to the local service, the temporary order to be issued now will provide rates which are fully adequate. In fact, so serious is the business situation and so greatly impaired has been the earning power of business generally that it may be seriously questioned whether a concern having the record of financial success which Wisconsin Telephone Company has enjoyed should be expected to be able to earn a dividend of 6% on the capitalization assignable to its local service.

At the end of 1931 there were outstanding the following securities and obligations:

Common stock	$40,000,000
Preferred stock	4,947,000
Funded debt (land contract)	50,000
American Telephone & Telegraph Co. advances	2,400,000
Bills payable to Bankers Trust Co. for pension notes	2,049,606
Total	$49,446,606

The amount of revenue which would be needed to meet the interest obligations, to pay the 7% dividend on the preferred stock and to pay a 6% dividend on common stock, is as follows:

Common stock dividend 6%	$ 2,400,000
Preferred stock dividend 7%	346,290
Interest on land contract 5%	2,500
Interest on American Telephone & Telegraph Company advances 5.88%	141,120
*Interest on notes to Bankers Trust Co. at 4%	81,984
Total	$ 2,971,894

*Rate reduced from 5½% to 4% in 1932.

For the Company as a whole, therefore, it appears that earnings available for return, amounting to $2,971,894, would be sufficient to enable it to pay a 6% dividend on all of its outstanding common stock. This figure may be compared with net operating income, after giving effect to the adjustments of expenses which have previously been discussed, of $4,060,478. This amount of net operating income is the amount based on revenues of 1931 on adjusted expenses and after the segregation of that part of the expenses assignable to the toll service. It also reflects the adjustment of license fee payments and taxes to the amounts necessary to give effect to the reduction of revenue provided for by this order. Therefore, the amount stated less the reduction in revenue provided for by this order will result in a statement of the net operating income after giving effect to the reduction.

Two methods may be employed for determining the amount of interest and dividend requirements applicable to the exchange system.

At December 31, 1931, the total book cost of all fixed capital in service was $75,138,311, of which $55,347,385 was recorded

as exchange property and $19,790,926 was recorded as toll property. However, included in exchange fixed capital was $2,463,739 of land, buildings and general equipment in Milwaukee used jointly for the exchange and toll systems and commonly referred to as the "Milwaukee prorate." The Company assigns, but not in its records, $674,155 of the prorate to toll service. When this amount is deducted from the recorded exchange property of $55,347,385 and is added to toll, the exchange fixed capital becomes $54,673,230 and the toll is increased to $20,465,081.

If the foregoing relative amounts of total fixed capital are accepted as measures of the respective amounts of capital furnished by borrowing and by the sale of securities, the interest and dividend requirements on the portion applicable to exchange property would be $2,162,350 of the total of such requirements of $2,971,894, as previously developed. That is, the exchange property is 72.76% of the total and this percentage applied to the total interest and dividend requirements gives $2,162,350 to be obtained from exchange service, leaving $809,544 to be raised from toll operations.

In addition to the Milwaukee prorate which the Company records entirely as exchange property, there is general equipment, other than included in the Milwaukee prorate, which, it appears, is not recorded in accordance with its actual use. There has not been considered the accuracy of the Company's apportionment of this other general equipment between exchange and toll operations, although the amount apportioned to toll appears low. Neither has any attempt been made to verify the Company's apportionment of the Milwaukee prorate. Both are accepted, at this time, as shown by the Company.

It might be argued that the segregation should be made not upon the basis of the total fixed capital account, because capital has not been provided by borrowings and by the sale of securities to any such extent. A large part of the Company's fixed capital has been built by the use of funds reserved to meet depreciation. Attention has previously been called to the fact that the methods of accruing for depreciation which the Company has employed have resulted in the accrual of a much larger ratio of reserve to fixed capital for the exchange system than for the toll system. Since this has been the case, it would appear reasonable

to hold that it has been necessary to secure capital from other sources—that is, from borrowings or from the sale of securities—to a greater extent relatively for the toll fixed capital than for the exchange fixed capital. If this method of determination of interest and dividend requirements were employed, the percentage of the total requirements which would be assignable to the exchange system would be about 69 instead of 72.76 and the percentage assignable to the toll system would be approximately 31 instead of 27.24. On this basis the total annual requirement for interest and dividends at the end of 1931 for the exchange system would be $2,050,607 instead of $2,162,350 previously referred to.

While we have called attention to the alternative basis which may be used and to the reasoning by which the use of the $2,050,607 may be supported, we have employed for the purpose of this case $2,162,350 as a measure of interest and dividend requirements applicable to the exchange system, based on borrowings and securities outstanding at the end of 1931.

It has previously been pointed out that of average exchange system fixed capital for 1931, $47,988,710 is the maximum assignable to local use, and $5,016,296 is the minimum assignable to toll use. That is, the maximum amount assignable to local use is 90.5% of the total exchange system average fixed capital. With this percentage applied to the exchange system requirement of $2,162,350, the interest and dividend requirement for the local use becomes $1,957,792, which is $1,854,435 less than the exchange system net operating income of $3,812,227 previously determined.

We have previously shown the net operating income of the local system for 1931, after all adjustments which have been discussed, to have been $3,812,227. It would appear, therefore, that, on the basis of 1931 operations, a reduction of revenue from local service amounting to $1,854,435 might be made and the Company still be enabled to earn a dividend of 6% on the common stock applicable to the local system.

In addition to its net income from operations the Company had in 1931 a net non-operating income of $123,719. It does not appear important for the purposes of this case to attempt any segregation of non-operating income between local and toll, nor

to decide whether or not or to what extent non-operating income may be given consideration in determining a schedule of rates. It is sufficient for the purposes of this temporary order that we deal with the net operating income of local service of $3,812,227 and the requirement for interest and dividends on account of local service of $1,957,792.

Effect of Reduction of Exchange Service Revenues by 12½%

In this order the Commission finds that a reduction of 12½% should be made in certain classes of exchange service revenue. Schedule 1 of Exhibit C-82, shows the detail of such revenues for the years 1929 to 1931, inclusive. The statement, which follows, gives, for the year 1931, the items to which this reduction is applicable, the amount of the reduction and what the revenues in 1931 would have been had the 12½% decrease been in effect that year. This assumes that the reduction *per se* would have neither stimulated nor curtailed the use of telephone service.

Acc't Number	Account Title	Per Books	12½% Reduction	Adjusted
500	Subscribers' Station Revenues:			
500–10	Exchange Service Revenues	$12,595,159.60	$ 1,550,066.18	$11,045,093.42
500–20	Cancellations	5,999.51		5,999.51
500–30	Service Connection Charges	54,383.76		54,383.76
	Total Subscribers' Station Revenues	$12,655,542.87	$ 1,550,066.18	$11,105,476.69
501	Public Pay Station Revenues	$ 257,657.05	$	$ 257,657.05
502	Miscellaneous Exchange Service Revenues:			
503	Service Stations	$ 84,938.69	$ 10,617.34	$ 74,321.35
504	Private Exchange Lines	46,128.94	5,766.12	40,362.82
505	Minor Rents of Exchange Plant	5,845.13		5,845.13
506	Other Exchange Revenues			
	Total Miscellaneous Exchange Service Revenues	$ 136,912.76	$ 16,383.46	$ 120,529.30
	Total Exchange Service Revenues	$13,050,112.68	$ 1,566,449.64	$11,483,663.04

SERVICES OF SUBSCRIBERS' STATION EXCHANGE SERVICE REVENUE (ACCOUNT 500-10)

Item	Description	Per Books	12½% Reduction	Adjusted
1	Regular Monthly Billings to Subscribers	$10,462,432.45	$ 1,307,804.06	$ 9,154,628.39
2	Fractional Billings	68,387.18	8,548.40	59,838.78
3	Regular Monthly Billings for Additional Messages under Milwaukee Measured Message Rates	1,059,944.05	132,493.01	927,451.04
4	Credits Allowed Subscribers	(115,170.53)	(14,396.32)	(100,774.21)
5	Write-off of Exchange Service Revenues Billed in Advance	93,669.99	11,708.75	81,961.24
6	Miscellaneous Billings	15,860.99	1,982.62	13,878.37
7	Net Charge in Unbilled Revenues	(791.78)	(98.97)	(692.81)
8	Semi-public Pay Station Revenues	816,214.39	102,026.80	714,187.59
9	Hotel Messages, Forfeited Discounts and Other Miscellaneous Charges	194,630.21		194,630.21
10	Sundry Small Items—Adjustments, etc.—Net	(17.35)	(2.17)	(15.18)
	Total	$12,595,159.60	$ 1,550,066.18	$11,045,093.42

Parentheses denote deduction.

In the revision of rates provided for herein, no change is made in the amount of revenue per message which the Company receives and retains from messages in excess of the guaranteed number from semi-public pay stations. In the tabulation just preceding, the amount of the reduction is somewhat overstated because, in determining that amount, the 12½% was applied to the account containing the total Company revenue from semi-public pay stations. It is considered unnecessary to carry the computation into the detail to correct for this overstatement of the amount of the reduction. The overstatement has some slight effect on the amount of taxes and license fee payments but inasmuch as the aggregate effect is to diminish the Company's revenue by amounts less than those shown and as the total is not large, we have concluded that the method which has been employed is sufficiently accurate.

Our accountants have noted in the course of their work that the Company's exchange system revenue has shown a decline since January 1, 1932. It is impossible, of course, to determine now how serious the effect of the decline in business may be. Undoubtedly the decrease in exchange business is to some extent associated with the existing level of rates and the reduced rates herein provided cannot be without their effect on the volume of business. It has previously been shown that the net operating income of the local system for 1931, after adjustments, was $1,854,435 in excess of the amount required to meet the local system's proportionate part of interest and dividends and that the reduction provided by this order is substantially $1,566,450, less a comparatively unimportant amount by which the reduction is overstated because the 12½% decrease was applied to the revenue including that from excess messages at semi-public pay stations. It appears, therefore, that about $288,000 of excess revenue over and above the amount of the reduction herein provided would be available on the basis of 1931 business.

Because it is impossible to forecast the condition of the Company's local business during the effectiveness of this order, the order will provide that the Company may at any time ask for review and modification in the light of changed conditions.

EXISTENCE OF ECONOMIC EMERGENCY

Economic Conditions in Wisconsin

Included in the testimony submitted to the Commission is material on the prevailing economic conditions in Wisconsin and United States. The material relating to Wisconsin was submitted by five departments of the State Government, the Economics Department of the University of Wisconsin, and the Commission's staff. The evidence related to prevailing economic conditions in Wisconsin portrays the effect of the current business depression upon labor, agriculture, corporate business, financial institutions and utilities, and personal incomes.

Wage-Earners

The present economic position of wage-earners in Wisconsin was indicated by data currently collected by the Industrial Commission of Wisconsin covering employment, payrolls, average weekly earnings per capita, hours of labor and expenditures for poor relief.

Employment

Based upon a sample of employers reporting to the Industrial Commission, it appears from the record that the number of manual employees in manufacturing enterprises in Wisconsin was in March, 1932, 68.1% of the average level of employment in the years 1925 to 1927, inclusive. Among the non-manufacturing groups of industries, only one (express, telephone and telegraph) showed a higher level of employment than the average level of the years 1925 to 1927, inclusive. In addition to manufacturing employment, building construction, highway construction and hotels and restaurants appear to be the important industrial groupings. For these three groups the indexes comparable to that for the manufacturing index were 40.5% for building construction, 88.8% for highway construction, and 78.3% for hotels and restaurants.

Among non-manual employees the level of employment in March, 1932, compared with the base period of 1925 to 1927, was likewise lower. The most important grouping of this class

of employment (retail trade, sales force only) was 97.8% of the base period. One relatively small group of non-manual employees showed an increase of employment compared with the base period.

In general, the number of employes on factory payrolls in March, 1932, was from one-fourth to one-third less than the number of employees on factory payrolls in 1929; furthermore, comparing identical months in 1932 with 1931 and 1930, the level of employment has declined each year to a lower point than in the preceding year.

Weekly Payrolls

Aggregate weekly payrolls, as reported to the Industrial Commission, represent the disbursements to wage-earners. These data normally fluctuate more widely than the number of employees on the payroll because of the common tendency to shorten hours of work during slack times before resorting to complete separation from the payroll.

In March, 1932, weekly payrolls of reporting manufacturing firms were 48.5% of the level of wage disbursements in 1925 to 1927, inclusive. From March, 1930, to March, 1932, the decline of payrolls was 48%. The Commission takes "judicial notice" that figures published since the hearing show a further decline.

Average Per Capita Weekly Earnings

The division of aggregate weekly earnings by the number of employees reported by the same firms gives the average weekly earnings per person on the payroll. Exhibit C-28, Table IV, gives average per capita weekly earnings and shows that in January, 1932, they reached the lowest point ($16.76) since the figures were first gathered in July, 1920. In February and March, 1932, there was a less than usual seasonal increase. We take "judicial notice" of further declines in this published index since the hearing. Before the current depression the lowest point reached by this index was in January, 1922 ($19.58).

The reduction of these weekly earnings figures is influenced not only by reduced rates of wages, but also by shorter working hours. It should be recalled that these weekly earnings are an

average of the payments made only to those retained on factory payrolls. As the index of employment shows, there are at the present time, large numbers of workers who are receiving no income from employment or whose earnings, if any, are not reflected in this index.

Hours of Work

Since the previously discussed indexes must be interpreted in the light of the number of hours worked per week, we note that the number of hours worked declined from a peak of 51.8 hours per week in September, 1928, to a low point of 39.7 hours per week in November, 1931—the latest month for which figures were obtainable. This represents a decline of over 20% from the relatively high level prevailing before the depression.

Comparison of Effect of Present Depression on Labor with the Effects of Previous Depressions

Included in the testimony is a comparison of the decline in employment, weekly payrolls and per capita weekly earnings from the high point to the low point, or to the latest date available, in the present depression and three previous depressions. It appears from the evidence that the so-called depressions of 1924 and 1927 were relatively minor in their effects upon labor. The present depression and the depression of 1921 are commonly called major depressions. The following table compares for these two major depressions the percentage change from the pre-depression high point to the low point or to the latest date available.

	1920-21	1929-32*	1929-32†
Number of employees on payrolls	—37.1%	—32.8%	—37.0%
Aggregate weekly payroll	—56.0%	—54.6%	—61.3%
Average per capita weekly earnings	—30.1%	—34.8%	—41.8%
Average hours worked per week	(not available)	—22.6%**	—22.6%**
Months elapsed from previous high to low point of depression	11	35*	37†

*To March, 1932, only.
**This figure is for November, 1931.
†To May, 1932, only.

The percentages shown above in the third column include figures up to May, 1932, a later date than was available at the time of the hearing. We take "judicial notice" of these later figures which are in the files of the Industrial Commission of Wisconsin.

These percentage changes, taken in connection with the fact that the current depression has already lasted more than three times as long as that of 1921, indicate that employment, payrolls, and weekly earnings in the present depression have fallen at a relatively slower monthly rate than in 1920-1921. Upon cross examination by the Counsel for the Company, it was also pointed out that owing to the seasonal upturn in the first three months of the year 1932, which influence was lacking in the period covered by the percentages for 1920-21, the comparative percentage changes do not fully disclose the situation. The percentage decline of these indexes in the present depression would have been materially greater than the percentage declines in 1920-21 if the seasonal influence were taken into account.

Poor Relief

The Industrial Commission under Chapter 29, Laws of the Special Session, 1931, is charged with the administration of the so-called Emergency Relief Statute. In connection therewith, it has required reports of expenditures by local governmental units for outdoor poor relief, which includes only "relief afforded persons in their own homes." In 1928, the total expenditures for this purpose were $1,236,837. The comparable figure for 1931, including only those local governmental units which have thus far reported, was $8,010,215, or an increase of more than six and three-quarter millions of dollars.

The reports for Milwaukee county indicate that in 1928 outdoor poor relief was extended to 1,291 families with an expenditure of $182,514; whereas, in 1931, aid was extended to 20,000 families, involving an expenditure of $2,703,499. The estimated expenditures by Milwaukee county for the month of March, 1932, indicate the extension of aid to 28,182 families with an estimated monthly expenditure of $619,000. The witness testified that, on the basis of March, 1932, figures, Milwaukee county

roughly was "aiding one out of every six families in the county." Similarly increased expenditures were reported by the city officials of Racine and Kenosha, although the expansion of the relief program was not so great in Kenosha as in Racine.

From the above recital of evidence in the record, it would appear that wage-earners in Wisconsin at the present time have undergone a loss of employment and a loss of income greater in amount and in duration than in the last major depression of 1920-21.

Wisconsin Farmers

Since Wisconsin is primarily a farming state, the economic condition of agriculture reflects the situation of the largest single group of Wisconsin citizens. In 1929 the estimated gross farm income of the State was $454,822,000; in 1930, $366,428,000; and in 1931, the preliminary estimate, at the time testimony was given by the Wisconsin Department of Agriculture, stood at $253,000,000. This is a decline of 44% in two years. Farm income, in these estimates, includes not only the value of farm products sold but also the value of farm products used in the producing farm's household.

The price index of 30 Wisconsin farm products declined 28% between February, 1931, and February, 1932, reaching the lowest point since this index was first compiled in 1910. The index for February, 1932, was 54% below the 1929 level. Milk, which with its products yields to Wisconsin farmers one-half their cash income, fell almost 24% in price during the year ending March, 1932; or 52% below the level of 1929. From an average price of $2.05 per cwt. the price of milk fell to less than $1.00, the lowest February price since 1901! This was the product which made Wisconsin relatively more prosperous than farmers in other sections of the country from 1926 through 1929 and even through most of 1930-1931. All other Wisconsin farm products, for which separate indexes are compiled, dropped materially in price during this period; excepting one group of commodities (fruits and vegetables), prices declined from 14% to almost 40% below the level of 1910-1914. On the average, farmers' selling prices were in February, 1932, almost 30% be-

low the pre-war level, and since February these prices have dropped still farther.

While prices received by Wisconsin farmers have fallen almost 30% *below* pre-war levels, the prices paid by U. S. farmers for comomdities bought were still in January, 1932, over 20% *above* pre-war levels. Although wholesale prices of all commodities had declined almost to pre-war levels by the end of 1931, the prices *paid* by the farmers, though declining, had not gone that far.

Farm labor rates, at about $20 a month with board, and $33 a month or $1.65 a day without board, have declined to the levels of about 1900, but on the typical family farm in Wisconsin, non-family labor is a relatively small item of expenditure. Except for this operating expense item, almost all farm expenditures, including interest on mortgage debt which, the testimony shows, has tended to increase in the past decade, have not declined proportionately to the prices received by the farmer for his produce. Taxes, too, have remained relatively rigid.

As a result of these discordant price movements, the purchasing power of the United States farmer is 38% below the pre-war level, and the Wisconsin farmer is little better off. The testimony is clear that the average farmer as a business man finds himself in the most serious plight farmers have experienced in this century.

Wisconsin Corporate Business

Corporate Taxable Income

The Wisconsin Tax Commission introduced into the record certain studies it has been making of the taxable incomes and losses of manufacturing and retail trade corporations doing business in Wisconsin, for the years 1928-1931. These figures are based on the tax returns of a sample group of 3,613 manufacturing corporations and 2,526 retail trade corporations in 1928-1930, and a somewhat smaller sample in 1931. The returns had been office audited, for the most part, except in 1931, but not field audited.

In 1929, manufacturing corporations in Wisconsin reported aggregate taxable incomes less losses of $109,631,400; in 1931,

the *losses exceeded the incomes*, by an estimated $29,018,100.

For retail trade corporations, the situation was even worse. These companies reported in 1929 taxable incomes less losses of $12,399,000. Two years later, *losses exceeded incomes* by almost the same amount, $12,014,800—a shift of almost 200%.

Over two-thirds of the corporations reported taxable *incomes* in 1929, while in 1931, over two-thirds of the corporations reported *losses* in excess of taxable income.

The Tax Commission's exhibit (C-32) also shows the 1930 and 1931 taxable incomes and losses of the sample group of identical corporporations studied for the 1931 estimates, broken down into 12 groups of manufacturing corporations, and 22 groups of retail corporations. All industrial groups of manufacturing corporations showed less taxable income or greater losses in 1931 than in 1930. Only one relatively minor retail group (tobacco) reported larger taxable income in 1931 than in 1930. Of the retail corporations reporting losses, only one group showed smaller losses in 1931 than in 1930 (grocers: about $400).

Disbursements of salaries and wages, and officers' salaries, by most of these corporations declined materially—the percentages ranging from 15% to 23%.

Commercial Failures

The Industrial Commission (Exhibits C-28 and C-28d) presented R. G. Dun & Company's statistics on the number of commercial failures and liabilities involved, since 1928, for Wisconsin and for the Seventh Federal Reserve District. For Wisconsin the annual number of failures has remained almost constant (around 650) for the past three years, but the liabilities involved have grown from $9,873,677 in 1929 to $16,389,438. Similarly, for the Seventh Federal Reserve District, the number of commercial failures actually declined in 1931 from 1930, but the liabilities involved materially increased, especially from October, 1931, through the first two months of 1932.

Banking

The Industrial Commission also submitted data on bank suspensions and reopenings in Wisconsin, gathered from the

Federal Reserve Board and from the Wisconsin Banking Department. In the two years following 1929 the number of bank suspensions and amount of deposits involved increased fourfold. In 1931 49 banks, with $24,701,000 of deposits, suspended. The number reopening thus far is less than one-fourth the number suspending. These data reflect in some measure spendable dollars which are "frozen" while the banks are in process of liquidation or reorganization.

Insurance

The Insurance Department of Wisconsin submitted tabulations showing the recent increase of policy loans. These reflect in some measure the extent to which policy holders have felt obliged to resort to their "rainy day" reserve assets, on account of depleted current income. The data show a sharp increase of such loans.

Personal Incomes

The Wisconsin Tax Commission, through the Chief Accountant of its Income Tax Division, Mr. H. B. Reyer, submitted an estimate, based upon a sample of the returns, of the 1932 income tax assessment against persons other than corporations. The evidence indicates that the 1932 normal income tax assessment will be approximately 25% less than the assessment for 1931, approximately 34% less than the 1930 assessment, and about 33% less than the 1929 assessment. The witness qualified these figures by the statement: "The 1932 assessment is based on an average of the annual incomes of 1929, 1930, and 1931, arithmetical average, and by reason of this average, the real decline of incomes of 1931 is reflected only to the extent of one-third of its full weight, being balanced against the income of 1929, which in our experience was one of the best income years on record."

Utilities

Exhibit C-29, introduced by Chief Economist Morehouse of the Commission's staff, summarizes for the four years 1928 to 1931, inclusive, operating and financial statistics of Wisconsin Class A and B utilities. The evidence indicates that the total

operating revenue of electric, gas, telephone, water and electric railway and bus utilities reached a high point in 1930 ($109,304,070). The decrease of operating revenues in 1931 was less than 4%, as reported by the companies in their annual returns to this Commission.

Among the several classes of utilities only one, the electric showed an increase in operating income (operating revenue less operating expenses and uncollectibles, depreciation, and taxes); this increase in 1931 compared with 1930 was less than one-half of one per cent. All other classes of utilities showed a decrease of operating income available for interest and dividends in 1931 as compared with 1930. This decrease was less than 5% in the case of all classes of utilities, except electric railway and bus companies.

While the dividend rates of all Class A and B utilities, including those which paid no dividend, declined in 1931 compared with 1928, the evidence indicates that in 1931 these utilities were able to pay on the average 8% dividends, which were equivalent to more than 6% on average common stock equity. Also, in 1931 these utilities as a group were able to add to surplus, one and one-half million dollars, and excluding electric railway and bus companies, two and one-half million dollars.

The evidence appears to indicate that the effects of the current business depression upon the earnings of the larger Wisconsin utilities have been relatively slight, compared with the effects on other classes of business corporations, labor, farmers, and the incomes of the average citizen.

GENERAL ECONOMIC TESTIMONY

The first of the nationally known economists who gave testimony in an advisory capacity was Dr. F. C. Mills, of Columbia University. Dr. Mills has for many years been studying price movements and is internationally known as an authority on this subject. His factual testimony embraced two major topics:

First, a general description of the current depression with some comparisons with previous depressions;

Second, an analysis of the disparities among various prices that have developed during the current depression.

Economic Conditions in the United States

The witness introduced an exhibit showing the course of wholesale prices since the year 1790. The exhibit shows three major periods of rising prices, culminating in 1812, in 1865, and in 1920. These peaks were followed by periods of general price declines to low points in the decade of the 40's, the decade of the 90's, and the present.

A second exhibit introduced by the witness was a so-called "Depression Index" developed by Col. Leonard Ayres, of the Cleveland Trust Company. This index begins in 1831 and shows a more drastic decline from the calculated level of normal business activity in the depression beginning in 1929 than for any depression period since 1831; however, the depression after 1873 is shown as of greater duration than the depression of 1929 thus far. This index indicates a decline in the level of business activity from September, 1929, to March, 1932, of about 32%. As compared with the level of "normal" business activity, at the present time we are operating 40% below "normal;" whereas, according to this index, in no earlier period back to 1831 was there a decline amounting to 30% below "normal."

Exhibit C-47, introduced by this witness, is another index of general business activity, prepared by American Telephone and Telegraph Company. This index begins in 1877. In 1929, business activity was about 11% above normal; in March, 1932, according to the American Telephone and Telegraph Company index, business was over 50% below normal. This drop in the level of business activity was greater than in any preceding year covered by the index; in the 1921 depression business was, according to this index, about 28% below normal.

Dr. Mills supplemented these charts with detailed figures indicating the extremely low level of economic activity in the country as a whole. These data confirm the similar figures introduced by Prof. Commons of the University of Wisconsin.

The Federal Reserve Board's index of the volume of industrial production declined by March, 1932, 46% below the high point of June, 1929. The percentage of steel plant capacity used in March, 1932, varied from 13% in the case of steel castings to 25% in the case of steel ingots. Freight car loadings declined

44% from June, 1929, to March, 1932. The value of foreign trade imports declined 66% in the three years following March, 1929, and the value of exports declined 68% in the same period. The number of bank failures increased more than four-fold from 1928 to 1931 and the deposits of suspended banks increased more than ten-fold. Security issues for new capital declined 85% from 1929 to the average of the first two months of 1932. From February 1, 1929, to April 1, 1932, the total market values of shares of stock listed on the New York Stock Exchange declined about sixty-five billion dollars. The corresponding decline of value of listed bonds was about nine and one-half billion dollars. The total decline in the dollar value of these listed securities approximately represents "the loss of a complete year's income of the people of the United States."

Various estimates of the total number of totally unemployed persons, indicate that approximately seven million wage earners were, in early 1932, totally unemployed compared with about two million of unemployed in 1929. Surveys of relief expenditures in a sample of from 37 to 65 cities indicate an increase of relief expenditures greater than 300% compared with 1929. In addition, the witness cited estimates of the total volume of public and private debt in the United States in 1929 which amounted to two hundred billions of dollars and commented upon the fact that these debts contracted at the price level of 1929 represent obligations to repay dollars worth from one-third to one-half more than at the time the debts were contracted.

Price Disparities in Depression

Exhibit C-48 compares the general movemeint of wholesale prices in three periods of depression: 1907, 1920-21, and 1929 to date. In the relative duration of price decline the present depression has been by far the most serious of those here compared. In 1907 the decline lasted only four months; in 1920-21 the decline lasted twenty months; in the present depression the decline has already lasted over thirty-three months. The amount of the decline in prices in 1920-21 was greater than either of the other two periods, largely because the decline started from an inflated level; moreover, the price decline in this period was much sharper than in either of the other two periods. In 1907 the average rate

of decline was 2.1% a month; in 1920-21, 3% a month; and in 1929 to date, 1.2% a month. The witness concluded from these facts that, although the amount of the price decline in 1920 and 1921 measured from high to low points was more severe than in the present depression, in duration the present depression "is distinctly more severe."

The relatively slower rate of decline in the present depression was stated by the witness to be an unfavorable factor. The sharp drop in 1920-21 was partly explained by the lack of obstacles to liquidation because the decline started from a sharp and temporary peak of prices in early 1920; on the other hand the break in prices in 1929 came after a relatively long period of comparatively stable prices. During these six or eight years debts had been contracted and obligations built up partly as a result of the sense of permanence attached to the price level of 1929 and preceding years, which did not prevail in 1920. As a consequence, the resistance to price adjustment in the present depression has been much stouter and represents the existence of forces deferring price readjustment and widening price differentials.

Translating these price movements in terms of the purchasing power of the dollar, Dr. Mills stated that the purchasing power of the dollar in wholesale markets, as a result of these price declines, had increased 49.9% to April, 1932. The purchasing power of the dollar in the retail food markets has increased 53.1%. Measured by the cost of living index of the National Industrial Conference Board, the purchasing power of the dollar has increased 27.1%; and measured by an index of general prices covering more items than enter into other indexes, as compiled by Carl Snyder, Statistician of the Federal Reserve Bank of New York, the purchasing power of the dollar increased 33.5% since September, 1929.

Exhibits C-49, C-50 and C-51 present graphically and statistically the facts as to unequal movements of prices during the current depression. Exhibit C-49 (Mills' Chart 4) is reproduced later with two of Bonbright's indexes added. The gist of Dr. Mills' testimony on uneven price movements can be summarized in tabular form. The table which follows shows the percentage change from July, 1929, to March and April, 1932, of various prices and groups of prices.

PERCENTAGE CHANGE FROM JULY, 1929 = 100

	To March, 1932	To April, 1932
	%	%
Prices received by farmers	—56.0	—58.0
Wholesale prices	—34.9	—35.1
Retail food prices	—34.0	
Prices paid by farmers	—26.0	—26.0
Per capita earnings of factory labor	—24.1	
Average hourly earnings	—11.1	
Cost of living	—20.4	
Building material prices	—11.9	
Construction costs	— 9.0	
Retail coal prices	+ 1.0	
Wholesale prices:		
Raw materials	—43.4	
Semi-manufactured goods	—38.2	
Finished goods	—29.2	
Farm products	—53.4	
Foods	—40.3	
All commodities, other than farm products and foods	—25.7	

It will be noted from the above table that the prices received by farmers have declined over 50% since July, 1929; that wholesale prices, retail food prices and per capita earnings of factory workers still on payrolls have declined about one-third since July, 1929; that the prices paid by farmers have dropped less than half as far as the prices received by farmers; that only one commodity included in the witness's figures shows an increase since July, 1929 (retail coal prices—plus 1.0%). Other than this one item, the declines in prices since July, 1929, range from 9% to 58%.

The relative position of various economic groups in the community was disclosed by certain classes of prices shown in Exhibit C-51. These facts as summarized in the preceding table indicate that those who sell raw materials have suffered a great drop in the prices received, whereas the prices to the final consumer have declined far less. This means that, to the manufacturer, costs have decreased more than have the selling prices of his goods. Dr. Mills' conclusion was that the failure of some prices to drop more closely in proportion to the drop in other prices largely explained why the incomes of the purchasers of goods were insufficient to keep up a normal volume of business.

resulting in what he called the "economic log jam." The witness further explained that his conclusions did not rest upon the assumption that the price relationships existing in July, 1929, necessarily were normal at that time. He pointed out that the relationship between different prices in 1929 represented a structure which had been built up over a period of years and therefore was a "going system" which was torn open by the price revolution since 1929.

Economic Interpretations

The explanations by Dr. Mills and the interpretations by witnesses following him, of these facts as to unbalanced prices can be briefly summarized.

Unbalanced Prices

The record indicates a substantial agreement that the unevenness of various price adjustments is a major factor prolonging and intensifying the present depression. If all prices were adjusted upward or downward at the same instant, no serious difficulties would ensue; in other words, there is no particular level of prices which is essential to prosperity. What affects the volume of employment and of business activity is the breaking open of relationships among different prices which have remained relatively stable over a period of years, such as the period ending 1929.

It was pointed out that normally prices are continually fluctuating at different times and in different degrees, but during a period of prosperity, these price adjustments take place more slowly, and are of minor extent, compared with a time of depression. Consequently, economic activities are readily adjusted to these relatively small and relatively slow price adjustments. However, since 1929, the discrepancy among prices has become very wide and the changes have proceeded rapidly.

The effects of relatively rapid and uneven price changes upon the volume of business come about through the effects of these changes upon the so-called profit margins of producers and upon the expenditures of consumers. The present situation was described as having such wide variations in prices that the margins

for profit are either nonexistent or so small that business men feel impelled to curtail or cease their activities. With the lengthening of the depression consumers' spendable funds have become so reduced by unemployment and fallen incomes that there was a marked deficiency in the demand for goods and services which might operate as a stimulus to a recovery in business.

Rigid Prices

The unusually wide discrepancy between the prices of different commodities and services in the present depression was attributed largely to the fact that the number of rigid prices was much larger in the present depression than in previous depressions. It was stated that if the price of some commodity in common use remains rigid when all other prices have been drastically cut and if the incomes of consumers have likewise been severely curtailed, then a larger proportion of the available spending power is used for those commodities whose prices have not changed. This, at the same time, lessens the proportion of the spending power available for those commodities and services which have been cut in price. This situation causes cumulative damage in a time of depression for it accentuates the effects of depression upon freely priced commodities and services.

Consequences of Adjusting Unbalanced Prices

Recovery from the depression, it was stated, depended largely upon restoring price relationships to some point where a margin for profit would re-appear so that business activity and employment would be stimulated. The most practicable remedy would be jointly to raise somewhat the lowest prices and "unfreeze" the rigid high prices. This, it was felt, would have the tendency of narrowing the now wide gap between many cost prices and selling prices and it would have the further advantage of releasing purchasing power for use in buying other commodities or services. In other words, a 10% reduction in the price of a widely used commodity that has remained relatively rigid while other prices have gone down might work itself out in reduced costs of doing business, restored profit margins, and recovery of employment, income, and spending. The same line of reasoning

was applied to the reduction of inflexible prices of goods or services common in an ordinary consumer's budget.

The foregoing interpretations of Dr. Mills' facts were substantially confirmed by several witnesses who appeared before the Commission in an advisory capacity. These witnesses included economists and an accountant, all eminent in their professions and nationally or internationally known. They were: Dr. E. R. A. Seligman of Columbia University; Dr. Frank A. Fetter of Princeton University; Dr. Jacob Viner of the University of Chicago; Dr. William A. Paton, accountant from the University of Michigan; Dr. James C. Bonbright of Columbia University. The last named witness presented, in addition, certain facts to which we shall refer later in this opinion. Dr. C. K. Leith, internationally known geologist of the University of Wisconsin, also analyzed the severe readjustments to a lower level of output and prices now facing the mineral industries.

Utility Prices

Bearing on the rigidity of utility prices, Dr. Bonbright presented several charts and tables portraying since 1913 the trend of various prices for utility services. The data presented were admittedly imperfect as an exact measure of this trend. They were, however, gathered from several published sources and were stated to be the best available. We reproduce in this opinion Dr. Bonbright's Exhibits C-60 and C-62, the latter of which superimposed upon Dr. Mills' Chart 4 (Exhibit C-49) the indexes of utility rates gathered by Dr. Bonbright and graphically presented in Exhibit C-61.

EXHIBIT C-60

PRICE INDICES FOR UTILITIES

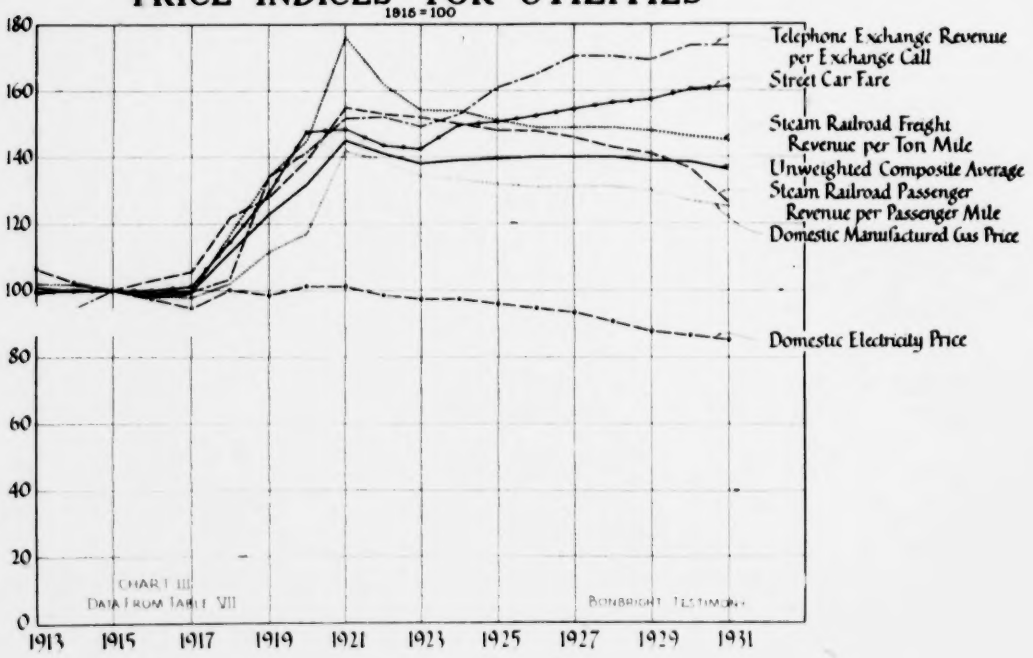

EXHIBIT C-62

Mills Chart 4 with Yearly Utility Price Indices Superimposed

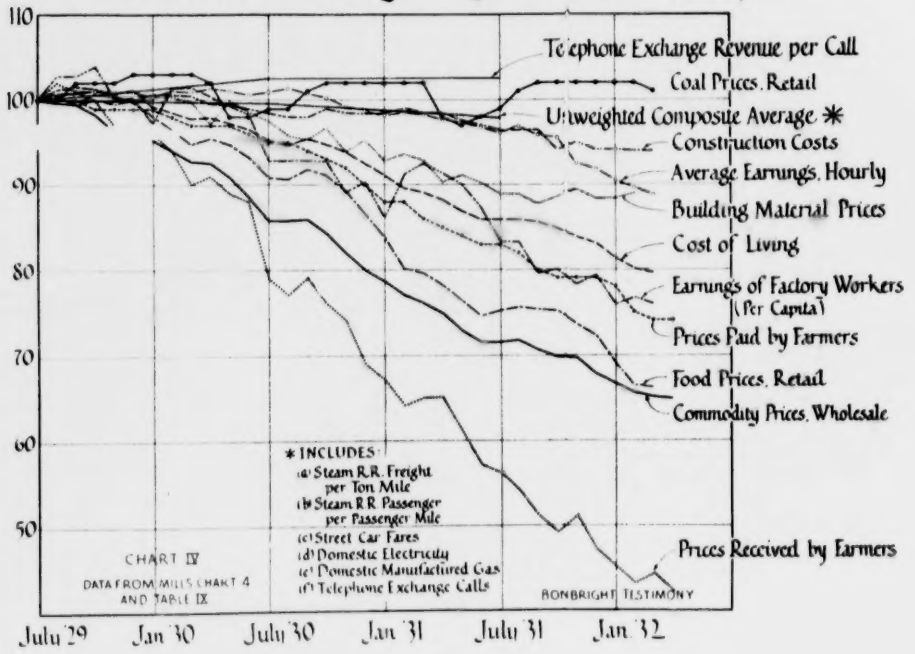

Exhibit C-57, presented by the Commission's Chief Economist, illustrates the rigidity of Wisconsin telephone rates in the recent years. The general movement has carried these rates somewhat higher in 1931 than in 1929, continuing the marked increase from 1917 to 1927. We summarize here in brief form the outstanding facts. The methods employed are fully explained in the exhibit.

Using the weighted average rates of December 31, 1913, as representing 100%, the exhibit shows index numbers, i.e., ratios of weighted average rates at the dates shown to the 1913 average, as follows:

	Urban Residence		Urban Business		Rural Residence
	Including Milwaukee	Outside of Milwaukee	Including Milwaukee	Outside of Milwaukee	For all Communities Studied
Dec. 31, 1913	100.00	100.00	100.00	100.00	100.00
Dec. 31, 1917	96.72	100.71	83.57	102.27	102.46
Dec. 31, 1922	129.51	135.46	113.57	139.39	148.36
Dec. 31, 1927	133.88	144.68	118.57	151.14	155.74
Dec. 31, 1929	134.43	145.39	119.29	153.03	158.29
Dec. 31, 1931	134.97	146.10	120.00	154.55	158.29

The cities for which the study was made include about 60% of the urban population of the State and about half of the cities having more than 5,000 inhabitants were included. Only a small part of the communities with less than 2,000 population was included but all such places in the State contain less than 14% of the population. The study included places served by Wisconsin Telephone Company and several which are served by independent companies. We believe the results obtained are fairly representative of the general situation in the State.

For private branch exchange service it is difficult to construct an index number of rates for the reason that the schedules are relatively complex and consist of a number of elements. Although no index number which will measure the change in these rates with statistical accuracy can well be developed, the files of the Commission contain records of a large number of cases in

which the charges for one or more of the elements of the P.B.X. rate have been increased and there is no question that the general level of rates for that service has been reaching higher and higher.

As indicated above, rates for telephone service increased very considerably from 1917 to 1922 and since 1922 there has been a further general increase. For each of the classes of service listed above, which constitute the principal classes, except for private branch exchanges, there has not been a year since 1916 for any class in which the index number has fallen, with the single exception that in 1931 the index for rural residence service stood at 158.20 whereas it had reached 159.02 in the preceding year. In the two or three years last past, telephone rates have been relatively rigid but what general movement there has been has taken them to levels even above those of 1929.

Comparative Rates of Earnings of Utilities and Unregulated Industries

Counsel for the respondent Company asserted that since utility companies during a period of prosperity were not permitted to earn the large returns which other corporations earn, they should not have their rates of return reduced in a time of depression. As the Company's counsel repeatedly phrased the argument—since utility companies were not permitted to share in the feast, they should not now be compelled to share in the famine when the general price level has declined.

Obviously such an argument requires that we examine the validity of the assertion that utilities did not earn large returns in a time of prosperity by comparing their earnings with unregulated industries both in time of prosperity and in time of depression. The testimony of several witnesses, chiefly Dr. James C. Bonbright, Dr. S. H. Nerlove of the University of Chicago, and Mr. J. Roy Blough of the Wisconsin Tax Commission, bears on this point.

Both Dr. Bonbright and Dr. Nerlove presented data derived from federal income tax returns, showing the rates of return on net worth of all corporations. Dr. Bonbright also showed these rates of return separated as to transportation and public utility corporations, and other corporations. The data covered the period from 1926 to 1930 inclusive.

It appears from these data that the range of the rates of return on net worth for all corporations was from 2.8% in 1930 to 7.0% in 1926. The corresponding figures for transportation and public utility corporations range from 4.5% in 1930 to 7.3% in 1926. Dr. Nerlove's figures, though derived from the same source, were based on somewhat different methods. His data show a ratio of net income to net worth for all corporations, ranging from 1.4% in 1930 to 7.5% in 1927.

The limitations of these data derived from federal income tax returns are recognized by the Commission, but it also appears that these data are the only ones readily available showing returns in unregulated industries.

The foregoing figures apply to corporate earnings for the entire country. The particular facts for Wisconsin corporations so far as they are available were presented by Mr. Blough, statistician for the Wisconsin Tax Commission, in Exhibits C-32, C-33, and C-34. These exhibits include ratios of taxable net income to book investment (capital stock equity) of Wisconsin corporations in 1928 and 1930. For all corporations included in the tabulation, the ratio of taxable net income to book investment for 1928 was 8.8% and in 1930, .6%. If only those corporations reporting taxable net income are included (including corporations reporting net losses), the figure for 1928 is 13.1%, and the figures for 1930 are 8.3% for manufacturing corporations and 6.8% for retail trade corporations. A study of these exhibits reveals the fact that when the corporations are grouped according to the ratios of taxable net income or loss to investment, in 1928, the range from 5% loss to 15% income includes over 56% of the number of corporations. A considerable number of corporations earned returns above 15%, and although 1928 is ordinarily accounted a prosperous year, over 30% of the total number of corporations showed a loss for that year.

The above ratios for 1928 are based on reported book investment at the beginning of the year while the ratios for 1930 are computed on book investment at the end of the year. Moreover, certain important groups of corporations had to be excluded because the amount of book investment was not reported. For these reasons the above data on Wisconsin corporations other

than utilities are not very satisfactory, although we are informed they are the best available.

Dr. Bonbright also presented data on the rates of return on net worth (capital stock equity) of selected large industrial corporations. These figures were taken from the National City Bank bulletin for April, 1932, and show rates of return of 13.5% in 1929, 6.7% in 1930, and 2.5% in 1931 for manufacturing and trading corporations.

For purposes of comparison with the above ratios of average corporations and selected groups of so-called "successful" corporations, we have computed similar ratios for public utility corporations from the figures prepared by the Rates and Research Department of the Commission and contained in Exhibit C-29. The rate of return computed is the ratio of net income available for dividends to capital stock equity of Class A and B electric, telephone, gas, water, electric railway, and bus companies in Wisconsin. The rates of return were 8.0% in 1928 and 5.7% in 1931.

In addition, the Commission has selected four large prosperous Wisconsin utility companies and computed the rates of return on common stock equity from the annual reports of these companies to this Commission. These data are presented in the following table:

RATIOS OF EARNINGS AVAILABLE FOR COMMON STOCK DIVIDENDS TO AVERAGE COMMON STOCK EQUITY

	1927	1928	1929	1930	1931
Wis. Tel. Co.	11.2%	11.0%	10.3%	6.2%	5.1%
Milwaukee Gas Light Co.	18.9	17.4	19.0	14.6	12.0
The Mil. Elec. Ry. & Lt. Co.	12.1	11.9	14.5	11.3	6.4
Wis. Gas & Elec. Co.	14.3	14.0	14.8	11.8	9.8
Simple Average	14.1%	18.6%	14.6%	11.0%	8.3%

We recognize that a comparison of this kind should not be made between a single "successful" utility corporation and the average corporation, which includes both those operating with large returns and those operating at a loss. However, the rates

of return for the group of four Wisconsin utilities may be compared roughly with the rates of return of "successful" unregulated industries. Thus, in 1928, the average rate of return on common stock equity of the above four utilities was 18.6% whereas "successful" unregulated Wisconsin corporations earned 13.1% in 1928. In all such comparisons, however, the Commission is thoroughly aware of the limitations of the data.

From careful study of the foregoing figures and the testimony elaborating them, the Commission concludes that serious doubt is thrown upon the assumption that utilities did not enjoy large returns in prosperous times as did other corporations. The Commission concludes from the above considerations that regulated utilities in Wisconsin have on the whole received generous rates of return on common stock equity in times of prosperity, comparing favorably with the rates of return of unregulated and "successful" corporations, and that in times of depression utilities fared much better than other corporations.

Conclusions from Economic Testimony

Counsel for the Company has contended that the testimony concerning economic conditions in Wisconsin and the country as a whole and the opinions of the economists are irrelevant and immaterial to the issues in this proceeding, except in so far as the Commission might take "judicial notice" of certain matters affecting the rate of return. Oral argument on this point took place at the hearing on June 1. The Commission denied the motion to strike this testimony and ruled that it was relevant, without indicating what weight should be attached to such testimony. The Commission, therefore, now undertakes to indicate what weight it attaches to this testimony.

The facts as to economic conditions in Wisconsin and elsewhere stand on a different footing from the opinions and interpretations offered in an advisory capacity by the economists. The opinions expressed were helpful in indicating the significance of the factual testimony, as viewed by distinguished and disinterested students of economics. The Commission from independent study of the facts might not, indeed does not, in all cases reach the same opinion as that expressed by the economists. We wish it clearly understood that any of the Commission's material con-

clusions from its study of the facts are reached independently of the opinion testimony; these conclusions, in our judgment, are justified by the facts regardless of the opinion testimony. But in so far as our conclusions coincide with the views expressed by the economists, we feel fortified by the judgment of thoroughly competent and disinterested advisers. Their opinions supplement, but do not control our conclusions; they are and should be given no more weight than this.

We have reviewed the factual evidence portraying economic conditions in Wisconsin and the country at large. If these facts showed only a minor recession in business, such as occurred in 1924 and 1927, we should not attach any weight to them. Regulatory bodies can not practically adjust rates to every minor disturbance. Nor would it be desirable to do so, for both the consuming and the investing public gain from keeping unstabilizing speculative influences out of the utilities.

But if these facts show an emergency, this Commission is not without power to act. Section 196.70 empowers the Commission to alter rates "when deemed by it necessary to prevent injury to the business or interests of the people or any public utility in case of any emergency to be judged by the Commission. . . ." This provision has been on the statute books for many years. It was invoked by the utilities when rapidly rising costs in 1918-1920 seriously affected them. But the statute has two purposes; the emergency contemplated by the legislature also includes "injury to the business or interests of the people." The Commission is given broad authority to determine when such an injury amounts to an emergency.

The present depression is no minor disturbance. It constitutes an economic crisis of major proportions. Facts abound in the record pointing to a situation unparalleled in the history of regulation and more serious than for generations past. There are facts in the record relating not only to the country as a whole but especially to Wisconsin farmers, wage-earners, corporations, and citizens generally. These are the customers of the utilities under our jurisdiction.

When their incomes on the average have shrunk by 25% or more, when less than a third of Wisconsin corporations report taxable incomes, when farmers receive 50% less than in 1929,

when all measures of wage-earners' livelihoods show unprecedented losses, we surely are not dealing with any minor disturbance. The prices of most commodities have been drastically cut, though in varying proportions. But utility rates and a few other prices have virtually stood still.

The consequences of this large and growing disparity in prices, along with severely reduced incomes, are plain. A larger proportion of the reduced spendable incomes in the state, a larger proportion of the shrunken income of the average consumer must be spent for utility services. Utility bills absorb a larger share of a depleted budget; less is available for other purposes. This is made cumulatively worse as price discrepancies grow and incomes drop still more. The consumer's alternatives are to curtail or do without utility services.

By their very nature, utility services are essential to community life. But we recognize that utility patrons do not have the option of buying these essentials elsewhere at a lower price, for the law and policy of the state do not ordinarily permit the wastes of having two or more utilities serving the same territory.

We do not adopt the view that the loss of utility patronage now appearing and growing apace can be at once reversed by an adjustment of rates. And we wish clearly to disavow the belief that rigid prices under our jurisdiction should forthwith be lowered to the level of the lowest or even to a level which will not permit the utility to render reasonably adequate service.

But even though a rate adjustment might not restore patronage now lost, it may well retard further loss. And even though the uncertainty of this outcome be conceded, we are still faced with the seriously impaired ability of consumers to continue paying for and receiving utility service.

Threatened or actual loss of utility service to large numbers of Wisconsin consumers seems to us clearly an "injury to the interests of the people."

We are aware of the difficulties of measuring precisely the impaired purchasing ability of thousands of scattered consumers, each with his own budget of expenses. A single utility enterprise is in a strikingly different situation. With relative ease it can marshal data to show, as a result of rapidly increasing costs, that rates are too low to enable it to give adequate service. If, on

this account, an emergency can only be shown to affect a utility, and not consumers, then the emergency statute is grossly discriminatory. We believe that the facts in the record, relating to the economic position of utility consumers, are sufficient and that they constitute the chief data readily available. And we believe further that the record amply supports our conclusion that a grave emergency confronts the people of this state.

The Commission therefore finds and determines from the facts and foregoing considerations that an emergency within the contemplation of Section 196.70 exists and that this emergency injures the "business and interests of the people."

The weight which we attach to this finding of emergency can be briefly indicated. If this were all that was before us, this Commission would be obligated under the statute to take such action to relieve the emergency as lay within its powers and appeared reasonable. This is consistent with the position taken by our predecessor, the Railroad Commission, when the same statute was invoked by and on behalf of the utilities. Furthermore such action may be summary, without the full, formal processes of investigation. In this view of our summary powers under this statute, we have been supported by the Supreme Court of Wisconsin in *LaCrosse v. Railroad Commission*, 172 Wis. 233. In addition, the existence of an emergency alters materially the weighting that should be given to factors influencing a reasonable rate of return. Indeed, what is a reasonable return in an economic emergency may be quite different from a fair return in less critical times. To this subject we shall refer in more detail later in this opinion. The investigation of this Company has already resulted in a prima facie showing in support of a temporary order. The existence of an emergency further impels us to act in accordance with these findings.

VALUE OF SERVICE

At the time of another great depression in American economic history which occurred in the 90's of the last century, a case arose in the federal court for the District of Nebraska which has since become a land-mark case in public utility law, *Smyth v. Ames*, the decision in the United States Supreme Court in 1897 being reported in 169 U. S. 466. There

a Nebraska statute, passed in the year of the panic of 1893, sought to regulate railroad rates at a time when the income of the shippers (and specifically the farmers of Nebraska) had been greatly deflated, in part because of a drop in the general price level; in part because of the business depression.

In the decision of the United States Supreme Court, written by Mr. Justice Harlan, two standards are laid down as a measurement of the rights of the utility under the Federal Constitution with respect to rates imposed by public authority. The first right relates to the financial affairs of the utility itself, namely: "What the Company is entitled to ask is a fair return upon the value of that which it employs for the public convenience," (page 547). In the next sentence in the opinion the other equally essential factor is laid down: "On the other hand, what the public is entitled to demand is that *no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.*"

This factor of value of service had been given weight prior to *Smyth v. Ames* and has been confirmed by subsequent decisions of the Court. In *Covington and Lexington Turn Pike Road v. Sanford*, (1896) 164 U. S. 578, at 598, fairness to the shipper is made one of the factors in determining the fairness of rates:

> ". . . the right of the public to use the plaintiff's turn pike upon payment of such tolls as, in view of the nature and *value of the service rendered* by the company are reasonable, is an element in the general inquiry whether the rates established by law are unjust and unreasonable."

In *Cotting v. Goddard*, (1901) 183 U. S. 79, Mr. Justice Brewer said that "The question is always not what does he [a carrier] make as the aggregate of his profits, but what is the *value of the services* which he renders to the one seeking and receiving such services" (at page 97). In *Vandalia Railroad v. Schnull*, (1921) 255 U. S. 113, 119, the Court said that a railroad is "subject to the power of the State to see and require that the rate fixed be just and reasonable, one that, while it will yield a revenue to the railroad, will be proportioned to that which should be charged to the public." In *San Diego Land and T. Co. v. National City*, (1899) 174 U. S. 739, at 757, the Court dis-

approved a standard of fair rates in which the sole consideration was cost and return to the company, and said: "The basis of calculation suggested by the appellant is, however, defective in not requiring the real value of the property and the *fair value in themselves of the services rendered* to be taken into consideration." (Our italics.) In a recent case, *Darnell v. Edwards*, (1917) 244 U. S. 564, at 570, the Court stated that "the nature and value of the service rendered by the Company to the public are matters to be considered" in determining upon the fairness of rates.

While the tendency in the courts in recent years has been to give primary consideration to cost of operation and return upon value it must not be forgotten that it is still the law that rates, regardless of their effect upon the financial condition of the company, *cannot exceed what the services are reasonably worth.*

In the practical building up of rates by utility managements and in the fixing of rates by commissions the value of the service factor has been consistently recognized. This is notably true of the differentials between various classes of telephone rates and in the making of rates for industrial power and gas, where competition with private plants is felt.

How to measure the value of any service is, of course, a difficult problem and involves intangibles upon which an informed judgment can be had but which cannot be measured by precise accounting methods as financial operations can be measured. But the fact that the element is difficult to measure makes it no less important. Perhaps in times of normal business activity the factor of value of service has less significance than at a time such as this when the purchasing power and the income of businesses and individuals has drastically shrunk. We have today a condition comparable with although more severe than that which existed in Nebraska and in the country in the 90's when *Smyth v. Ames* was decided, and when the Court laid down the basic rule that in any event the rates may not exceed what the services are reasonably worth.

In the order issued this day we have based our conclusions upon computations of cost, to make certain that the rates fixed will produce a fair return for the Company. In other

words, we have emphasized the first element laid down in *Smyth v. Ames:* fair compensation to the Company. Our conclusion would be unsound if we had not also given some consideration to the value of the service in relation to the rates we have fixed by this order.

Value of service may be measured by a number of factors which, at some points might conflict with the cost of service expressed in terms of sums actually being spent by the Company to furnish the service. Suppose the telephone company were to continue the steady increase in its costs of operation by increasing the quality of materials used, possibly, to use an extreme illustration, by equipping telephone instruments with silver mountings. The money might well be *actually expended* in perfect good faith and necessitate, on a cost of service basis, a substantial increase in rates, or in any event make it impossible to reduce rates without thereby reducing the Company's income below that of a fair return upon any basis. Yet it is perfectly clear that the Commission would be under a duty to prevent such increases or even to reduce those rates because the service of inter-communication would not be reasonably worth what the Company has expended to produce it.

In this connection attention is directed to the fact that telephone rates have been increasing steadily. An index of telephone rates introduced into the record which used December 31, 1913, as 100% shows that by the end of 1922 these rates ranged from 113.57% to 151.59% of 1913 rates, and by December 31, 1931 (after almost two years of the depression and lower general prices) the rates were from 120% to 177.78% of the 1913 rates. During the period of the study there was no time since 1916 in which the rates fell in ratio to the 1913 rates for any class of service except for the single case of rural service, rates for which in 1931 fell slightly from the 1930 level.

The ratio between the charge made for a utility service and the income of the general public available for such payments is another measure of value of service. If the charge for telephone service at a particular level represents, let us say, 5% of the average family income, then if a drop in the general price level results in a drop of 50% in that average

income, in terms of dollars, and telephone rates remain constant, the question might well be raised whether this increase in the ratio of telephone rates to total income did not seriously affect the value of the service. It would seem clear to us that the value of the service is definitely related to the income in dollars generally available for all essential services and commodities.

Value of service can also be measured to some degree at least, by the losses or gains in volume of business done and in number of subscribers. This measure must be used with some care because telephone service is a legal monopoly. In recent months the number of subscribers of the Company has fallen off, as indicated by the following table which compares station loss for the first five months of 1932 with the station gain for corresponding periods in the past three years:

STATION GAIN AND LOSS*

	5 Mos. 1929	5 Mos. 1930	5 Mos. 1931	5 Mos. 1932
Residence	4,657	2,351	396	(5,407)
Main Business	658	1,026	354	(481)
Total	5,315	3,377	750	(5,888)
Residence		5	40	7
P. B. X. Business	1,363	880	19	(1,907)
Total	1,363	885	59	(1,900)
Residence	380	549	352	(130)
Extension Business	587	711	256	(323)
Total	967	1,260	608	(453)
Total Company	7,645	5,522	1,417	(8,241)
Private Line Stations	68	47	63	(40)

( ) represent station loss.
*Data compiled from Wisconsin Telephone Company's monthly report No. 7.

Station losses in 1931 did not begin to show until subsequent to May. Losses in the month of May, 1932, were almost double the total loss for last year.

This indicates, in a concrete way, that the rates were

in excess of the value of the service to these subscribers who discontinued their service or were disconnected.

If existing conditions continue and the drop in the general level of prices persists it may be necessary to fix rates in which the value of the service becomes an important and decisive factor and that time may be near at hand. Then more exact measures of value of service can and will be fashioned. In the light of economic history it is inevitable that the value of service must again be applied by utilities in order to keep their rates within the area where it may fairly be said that they are no greater than the services rendered are reasonably worth.

Our order is amply fortified by findings on the cost of service. We also find that the exchange services rendered by the Wisconsin Telephone Company affected by this order are not reasonably worth the rates now being charged—rates fixed during a period of high prices and a different level of income, and based on constantly increasing costs—and that such rates are for this additional and supplemental reason unreasonable and unjust. We further find that the services are not reasonably worth in excess of the rates fixed by this order.

INCREASE IN THE PURCHASING POWER OF THE INDUSTRY

Since 1929 the dollar has increased markedly in purchasing power. A dollar today, according to the facts produced by Dr. F. C. Mills in this record, will buy 49.9% more in wholesale markets than it would in 1929, 53.1% more in retail food markets, 33.5% more when tested by a very large number of commodities gathered by the Statistician of the Federal Reserve Bank of New York.

In other words, when a subscriber pays $5.00 a month to the Wisconsin Telephone Company in April, 1932, he is paying very substantially more than he paid for the same services in 1928, let us say, when the rate may have been fixed by the Commission as a reasonable one. In wholesale markets of today that $5.00 is now worth $7.50.

In 1929 the Wisconsin Telephone Company paid to its parent, the American Telephone and Telegraph Company, the

sum of $2,052,000 in dividends on common stock, at the rate of $8 per share. Dividends at the same rate are being accrued in 1932. The dividends payable in 1932 will buy much more than the dividends of 1929. In wholesale markets, expressed in terms of purchasing power the rate of 8% of 1929 becomes 12% in 1932, and $2,052,000 in 1929 becomes $3,078,000 in 1932.

The Supreme Court of the United States has held that such a change in purchasing power shall under appropriate circumstances be taken into consideration in rate proceedings. In *Banton v. Belt Line Ry. Corp.*, (1925) 268 U. S. 413, a rate fixed in 1912 was challenged in 1920 on the ground that it was confiscatory. The Court stated:

> "It is well known, and the court will take judicial notice of the fact, that the purchasing power of money has been much less since 1917 than it was in 1912, when the order was made; and that the cost of labor, materials and supplies necessary for the proper operation and maintenance of street railways had greatly increased." (At p. 422)

The increase in the purchasing power of money supports our findings relating to the value of service and to fair return, but is considered of such importance that it is discussed as a separate topic.

THIS IS A TEMPORARY ORDER

The investigation initiated by our order of July 29, 1931, is an undertaking of great magnitude. Hundreds of large volumes of accounts of the Company extending back to 1882 have had to be examined, thousands of computations made and many reports prepared and studied. This accounting inquiry is still far from completed. An engineering survey of a considerable number of exchanges, similar to that made for Madison and described herein, must be made. In view of the great decline in prices, a physical appraisal may be necessary of the entire system. A study of the relations with Western Electric and the American Telephone and Telegraph Company, and with the subsidiaries of each of these companies, is absolutely essential. (See our order in this case, entered July 29, 1931.) We are informed by our staff and we so find

expressly that at least another year will be necessary to complete this investigation and fix permanent rates for the 102 communities served by the Wisconsin Telephone Company.

Our investigation, though incomplete, thus far shows clearly that even on the present record existing rates are unreasonable and excessive and that substantial reductions therefrom would undoubtedly be necessary at the completion of the investigation (unless in the meantime conditions so change as to require a revision of our judgment). Temporary relief pending the completion of the investigation is justified by the facts thus far developed, and we so find. It would be a travesty on the processes of regulation if, because the investigation is yet incomplete, we would defer the reduction of rates, when clear and convincing proof is in our hands requiring such reduction. Excessive rates paid in the meantime by subscribers could never be recovered by them, and in a time when the income of consumers has shrunk so drastically such a result would be intolerable. If we had any doubts of our duty to enter this interlocutory order the difficult economic conditions in which consumers and business generally find themselves would resolve those doubts; but we have no such doubts. Temporary interlocutory orders by administrative bodies have been common, are authorized by our statute, and approved by our Court, the Courts of many states, and the Supreme Court of the United States.

Perhaps the most famous instance of such action was the *New England Divisions Case* before the Interstate Commerce Commission in 1920. After a hearing that Commission increased the division or shares of the several New England railroads in joint through freight rates 15% (66 I.C.C. 196), and in fact reduced the aggregate amounts receivable from each joint rate by railroads operating west of the Hudson River. Carriers were urged to work out between them a more systematic basis of division, subject to application to the Commission where agreements were not reached. A three-judge court denied an application for an interlocutory injunction, and on appeal the United States Supreme Court sustained the lower court and the Commission. One of the

objections made was that the "order directs a transfer of the revenues of the western carrier to the New England carriers, *pending a decision* in the matter of divisions" and that "the provisional character of the order demonstrates that the hearing has not been a full one". The Court sustained the proceedings in these words:

> "A hearing may be a full one, although the evidence introduced does not enable the tribunal to dispose of the issues completely or permanently; and *although the tribunal is convinced, when entering the order thereon, that, upon further investigation, some changes in it will have to be made.* To grant, under such circumstances, immediate relief, subject to later readjustments, was no more a transfer of revenues pending a decision than was the like action, in cases involving general increases in rates, a transfer of revenues from the pockets of the shippers to the treasury of the carriers. That the order is not obnoxious to the due process clause, because provisional, is clear. If this were not so, most temporary injunctions would violate the Constitution." (Our italics) *Akron C. & Y. R. Co. v. United States*, 261 U. S. 184, 201.

Sec. 196.395, Wisconsin Statutes, provides: "The Commission is empowered to issue conditional, *temporary*, emergency and supplemental orders."

We therefore find that it is necessary and just that an interlocutory temporary order be entered at this stage of the investigation so that unreasonable rates will not be charged during the coming year, during which period we hope to be able to complete the inquiry and enter a final order. This order is expressly limited to one year from its effective date.

Procedure and Findings Where Temporary Rate is Fixed

This being a temporary order to be effective only pending the completion of the investigation at which time all requisite findings are to be made, it is not essential that a finding of fair value be made. The issue was thoroughly litigated in *Chicago Railways Co. v. Chicago*, (1920) 292 Ill. 190. There the Commission authorized a temporary emergency increase in street railway fares in Chicago, made necessary by increases in operating expenses. It was objected by the city that the Commission could only order

a change "upon a full hearing and examination which would demonstrate what a permanent rate ought to be." The Court said:

> "So far as we have been informed, every court which has considered that question has decided to the contrary. (*Omaha and Council Bluffs Street Railway Co. v. Nebraska City Railway Com.*, 173 N. W. 690; *City of Charleston v. Public Service Com.*, 99 S. E. 63; *Kansas City v. Public Service Com.*, 210 S. W. 381; *O'Brien v. Public Utilities Comrs.*, 105 Atl. 132).

It was objected by the city that it had

> ". . . not given a reasonable opportunity to be heard and to have a full and fair investigation. The city appeared and protested against proceeding with the hearing on the ground that there should be a full investigation and that the books of the Company should be produced showing the expenditures made by the petitioners, and each of them, for the past twelve years for maintenance, repairs, salaries, dividends paid to the stockholders, and all other matters bearing on the determination of a reasonable rate. The attitude of counsel for the city was the same then as now: that before the temporary rate could be fixed there must be a full and complete investigation of the valuation of the petitioners' property and a thorough examination of their books. It was shown such a hearing and examination would be impossible and would defeat the object of the application for the temporary rate to meet increased expenses and save the petitioners from bankruptcy."

The Court concluded that a temporary rate could properly be fixed without such complete investigation and without a valuation.

It has been held very recently by a Federal three-judge court that the Indiana Commission has authority to fix a temporary emergency rate without the necessity of a valuation. *Indiana General Service Corp. v. McCardle*, Dist. Ct. Ind. not yet reported. A similar holding was made by the Supreme Court of Oklahoma in *Muskogee Gas & Electric Co. v. State*, (1920) 186 Pac. 730, where the Court said:

> "The Corporation Commission, therefore, has authority to prescribe a temporary rate when the necessity is apparent. Neither is the method of making the rates by the Corpora-

tion Commission limited to any particular theory or method, *nor is a valuation a necessary prerequisite to prescribing rates* . . ." (Our italics)

The Court in Oklahoma has not restricted the Commission to prescribing rates merely for the temporary period necessary to make an investigation and finding of the value of the utility's property. See *Oklahoma Gas & E. Co. v. Corporation Commission*, (1921) 201 Pac. 505. In *Bartlesville v. Corporation Commission*, (1921) 199 Pac. 376, no valuation was made, and the Court sustained the procedure, a temporary emergency rate order being involved.

Ample judicial sanction exists in other jurisdictions for the issuance of temporary orders by Public Service Commissions, without the necessity of complete valuations and other elements customarily considered in promulgating a *permanent* rate order.

The Supreme Court of Missouri sustained a temporary rate order of the Commission in a telephone case where the Commission had made valuations as to certain exchanges but not as to others. The Court said:

"That these further examinations were contemplated is evident from the Commission's orders. Its purposes, thus clearly defined, lend little countenance to the contention that the commission acted or was contemplating arbitrary or capricious action, and its proposed course is referred to only to exemplify that fact." *State ex rel. Southwestern Bell Tel. Co. v. Public Service Commission*, (1921) 233 S. W. 425, rev'd on other grounds (1923) 262 U. S. 276.

The Supreme Court of New Jersey, in sustaining a rate increase made because of the higher level of prices, but without a valuation, said:

"Thus is challenged the power of the Board of Utility Commissioners to increase or decrease a rate without a valuation of all the property of the corporation.

"It is well to bear in mind that the statute under which the Utility Commissioners are acting does not require it to make an appraisement of the value of the property. It may be wise to do so in some cases, but it is not obligatory . . ." *O'Brien v. Board of Public Utility Commissioners*, (1919) 92 N. J. L. 527, P.U.R. 1919D 774, 777.

The Supreme Court of Nebraska, in a case which concerned a rate increase due to changed financial conditions, declared that it was the power and duty of the Commission to permit the temporary rate without a full investigation and finding of value.

> "Under the Constitution and laws of this state, the Commission has a wide discretion in these matters. Even though present financial conditions, prices, and wages (showing almost unprecedented changes), together with the financial conditions of the plaintiff company, do not show a situation which would be technically denominated an emergency, yet, if they do show a situation which makes it altogether probable that the past and present rate is insufficient to yield a revenue which will pay that fair average return which the law supposes, the Commission is empowered, and it may be its duty, to permit a temporary rate, limited to the time required for making an investigation and finding of the value of the property." *Omaha & Council Bluffs St. Ry. v. Nebraska State Railway Commission,* (1919) 173 N. W. 590.

Procedure in Emergency Rate Cases

Our procedure is also justified upon a ground *additional to and independent* of the fact that the order is temporary, namely, that an emergency exists within the meaning of Section 196.70 of the Statutes. That provision is as follows:

> "196.70 TEMPORARY ALTERATION OR SUSPENSION OF RATES. (1) The commission shall have power, when deemed by it necessary to prevent injury to the business or interests of the people or any public utility of this state in case of any emergency to be judged of by the commission, to temporarily alter, amend, or with the consent of the public utility concerned, suspend any existing rates, schedules and order relating to or affecting any public utility or part of any public utility in this state.
>
> (2) Such rates so made by the commission shall apply to one or more of the public utilities in this state or to any portion thereof as may be directed by the commission, and shall take effect at such time and remain in force for such length of time as may be prescribed by the commission."

Based upon the facts concerning economic conditions in this state and in the country at large reviewed in this opinion we find that an emergency exists, and that a temporary order based upon

facts concerning this utility disclosed in this record and facts concerning the economic condition of the state require us temporarily to alter this Company's rates to prevent injury to the business and interests of the people of the state. Under this statutory power the Commission is authorized to employ a summary procedure falling short of the customary procedure in the case where a proceeding looking toward a permanent rate is the basis of the action. In *La Crosse v. Railroad Commission*, 172 Wis. 233, the Court, reversing the Circuit Court of Dane County, sustained action of the Commission under this statute increasing rates. The Court said (pp. 236-238):

> "*The statute calls for summary action* by the commission to meet the unusual conditions of such business created by unforeseen and unexpected culmination of circumstances which threaten to injure the utility business or the interests of the public connected therewith. The provisions do not require that the commission, in determining whether or not such an emergency exists, shall undertake such an inquest as is required of it in order to establish permanent reasonable rates and adequate service of utilities. It is manifest that the commission is given power to act upon its own motion in a summary manner when it deems it necessary to protect the utility business or the interests of the people when they are threatened by emergency conditions of the nature contemplated by the statutes. When this statutory condition arises, the commission is to exercise its judgment in the matter, and its action is not to be overruled unless it appears that it exceeded its powers or that its acts result in unjustifiably imposing unreasonable or unjust discriminatory burdens on the people or the utility. *The action of the commission under these powers is not therefore to be judged upon the same grounds nor tested by the same conditions as are the orders it may make in establishing permanent reasonable rates or ordering adequate service* . . . While the commission considered many facts that would necessarily be involved in determining a permanent reasonable and lawful rate, it declares expressly that it did not attempt to ascertain all the facts necessarily involved and required to be known to fix a permanent reasonable and lawful rate. It is to be noted that an application was pending before the commission when this proceeding was in progress to have the commission make such a permanent rate; presumably the commission is acting in that matter. The provisions for emergency rates and services were evidently designed to empower the commis-

sion to alter and suspend rates, schedules, and orders under emergency conditions for immediate protection of the public utility business or the public interests *during the time required by the commission to enable it to establish permanent rates and orders* for adequate service." (Our italics)

FAIR RETURN

Having made no finding of fair value we have, of course, made no finding as to what percentage return upon fair value the rates ordered will produce, and such a determination we believe unnecessary for the purposes of this interlocutory order. The rates fixed will produce sufficient revenue to permit of a return which is fair to the Company. Neither our statutes nor the state or federal constitution require that any particular procedure shall be followed so long as the net result is reasonable and does not deprive the utility of its property without due process of law.

Our order does not pass upon toll rates, and we therefore are making no finding respecting the reasonableness or unreasonableness of the return produced by existing rates on that separate class of business. If existing intra-state rates thereon, in the judgment of the Company, are inadequate, they have a remedy before this Commission.

The rates we have ordered into effect for exchange service will pay all reasonable operating expenses attributable to the local business, will cover an adequate provision for depreciation, taxes, all interest costs, dividends on preferred stock attributable to the local portion of exchange property, and then, over and above all these charges will provide a return on the investment in this property which when expressed in the language used in attracting capital to the Bell System, including the Wisconsin Telephone Company, is equal to 6% on the common stock; and in addition thereto provides a "cushion" of some $288,000.

Such a return as is above described, in an economic crisis of the gravest proportions, we find to be reasonable and indeed liberal. In reaching the conclusion that this return is fair we have been guided by the authoritative standards of fair return laid down by the decisions of the United States Supreme Court.

The principles are set out in the following quotations from the leading decisions:

Willcox v. Consolidated Gas Co., (1909) 212 U. S. 19, 48:

"There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and locality; . . ."

United Railways & E. Co. v. West, (1930) 280 U. S. 234, 249:

"What is a fair return . . . cannot be settled by invoking decisions of this court made years ago based upon conditions radically different from those which prevail today. The problem is one to be tested primarily by present day conditions."

Bluefield W. W. v. Public Service Commission, (1923) 262 U. S. 679, 692:

"A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public *equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings* which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time, and become too high or too low by changes affecting opportunities for investment, the money market, and *business conditions generally.*" (Our italics)

From these holdings of the Supreme Court (and others to the same effect which might be cited) certain principles or standards emerge. These may be summarized as follows:

(1) A fair return is a flexible concept, not a static, unchanging rule.

(2) What return is "fair" calls for the exercise of judgment in the light of the particular circumstances of each case.

(3) Present day conditions are controlling.

(4) General conditions affecting all business should be given consideration in the application of each of the measures of "fairness."

(5) To be fair the return should equal the returns earned at the time of the rate order by other business enterprises with comparable risks, in the same part of the country.

(6) The utility's needs for new capital should be considered, since the return should be such as, under present day conditions, will enable it to raise whatever capital it requires.

(7) The return should be such as will maintain the credit of the utility, in the light of presently existing business conditions and opportunities for capital in other enterprises.

(1) A fair return is a flexible concept, not a static, unchanging rule

The citations of past decisions in which a particular rate of return was held to be fair or not fair is of no assistance in solving our particular problem. And particularly is this true when we are, in the words of Chief Justice Hughes, in a "different economic era" than existed when those determinations were made. See *Atchison T. & S. Fe R. v. United States*, 76 L. ed. 229. As was said by Mr. Justice Sutherland in *United Railways and Electric Co. v. West*, 280 U. S. 234:

> "What is a fair return . . . cannot be settled by invoking decisions of this court made years ago based upon conditions radically different from those which prevail today. The problem is one to be tested primarily by present-day conditions." (At page 249)

(2) What return is "fair" calls for the exercise of judgment in each case

To enable us to exercise such a judgment the Legislature has given this Commission the broadest powers of general inquiry and the funds for a highly trained technical staff of statisticians, economists, accountants and engineers. We have had the benefit not only of the technical assistance of these qualified men but also of the "accumulated knowledge" of the staff on

the problems involved which the Supreme Court of this state has recently said "has been one of the chief factors that has stabilized rates in Wisconsin and tended to make them just and reasonable both to the public and to the utility." *Pabst Corp. v. Milwaukee*, (1926) 190 Wis. 349, 355.

As said by Mr. Justice Barnes: "What is a reasonable return is a question of fact, the solution of which calls for the exercise of sound judgment and common sense." *Duluth Street Railway Co. v. Railroad Commission*, (1915) 161 Wis. 245, 263.

(3) Present day conditions are controlling

The validity of this principle of the Supreme Court has peculiar force in this proceeding, for even since this investigation was instituted about a year ago conditions affecting measurements of fairness have changed radically. These present day conditions which are here of chief importance relate to general business conditions, the earnings enjoyed by other businesses with which the Telephone Company must compete for capital, and other points discussed below.

(4) General conditions affecting all business, and notably a condition amounting to an economic emergency, should be given consideration in the application of each of the measures of "fairness" and these measures of fairness must be determined in the light of the particular circumstances

At another point in this opinion we have summarized the comprehensive study of general business conditions in Wisconsin and the country at large which was presented in this proceeding, at our request, by various departments of the state government and by a number of distinguished economists and students of business activity.

When business generally is at as low an ebb of activity and profitableness as it is at this hour—perhaps lower than at any other time in the history of modern industry and finance—it is inevitable that the respondent Telephone Company (deriving its revenues from this harassed business and the community dependent upon business), must be content with a more moderate return than is its due in times of normal or more nearly normal business conditions. During the course of the hearings the Tele-

phone Company moved to strike all of the testimony relating to general business conditions upon the ground that it was irrelevant and immaterial to the issues in this proceeding. In denying that motion we said, *inter alia:*

> "Neither the Telephone Company nor any other business, whether regulated or unregulated, is immune from the economic conditions, which its customers and all other interests necessarily face. If this is a 'changed economic level,' we should have the facts relating thereto brought before us. It is only in this way that we may have a well-rounded background for determining the issues in this rate proceeding, and as we shall point out later, the law requires us to be cognizant of these facts."
>
> "The spectacular fall in the general commodity price level and in the prices paid generally by public utilities for materials, supplies and even labor (in many instances), the greatly increased purchasing power of the dollar paid to the Telephone Company by its subscribers, the low returns received in almost every other business at the present time, the relatively low rate of business activity throughout the country and not alone in Wisconsin,—these and other facts brought out in the testimony submitted at our request are, in our judgment, distinctly relevant to the issues in this telephone rate investigation."
>
> "Further, the Commission should give some weight to the fact that there has been a substantial increase in the purchasing power of the dollar paid to the Wisconsin Telephone Company in the form of rates, and in the dollar paid by it to the American Telephone and Telegraph Company in the form of dividends. Such is the plain direction of the Federal Supreme Court in *Banton v. Belt Line Railway Corporation,* (1925) 268 U. S. 413, 422."

That language we now reaffirm. A business enterprise enjoying a complete monopoly, not harassed by competition, rendering a service which has become an absolute necessity of business and social intercourse, surely has no statutory or constitutional right to a return in this time of general business catastrophe such as it enjoyed when the business community from which it derives its revenues was operating successfully.

This is not the first time that economic conditions affecting an entire community have been held to require a particular class of investors to throw in their lot with the rest of the community

and to forego part of the pecuniary advantage which their superior economic or legal privileges might empower them to exact. The so-called *Emergency Rent Cases* in the Supreme Court of the United States furnish an illuminating analogy to the present situation.

During the World War the city of Washington and New York City as well as other cities in the country were confronted with a housing shortage which reached the proportions of an emergency. It is true that the emergency was hardly comparable in its gravity and far-reaching consequences with that which the people of Wisconsin and the United States find themselves in today. To meet this situation the legislature of the state of New York and the Congress of the United States passed emergency housing legislation. This legislation purported to declare the renting of buildings for dwelling purposes a public utility enterprise, to set up agencies to regulate renting, and perhaps most drastic of all to strike down the provisions of leases for occupancy entered into in good faith prior to the emergency and which had behind them the sanction of the law of real property running back many centuries. Such a case was *Block v. Hirsh*, (1921) 256 U. S. 135. In that case Block was the tenant under a lease of a dwelling in Washington. His lease expired on December 31, 1919. Hirsh, the owner of the building, notified Block that he would require possession on the date of the expiration of the lease, and Block declined to surrender the premises, relying upon the emergency rent laws.

The legislation was enacted to meet an emergency situation and as such was sustained by the United States Supreme Court, four Justices dissenting. In the opinion of the majority written by Mr. Justice Holmes, it was said:

> "The regulation is put and justified only as a temporary measure. See *Wilson v. New*, 234 U. S. 346, *Fort Smith and Western Railroad Co. v. Mills*, 253 U. S. 206. A limit in time, to tide over a passing trouble, may justify a law that could not be upheld as a permanent change." (At page 157)

The effect of this law was to deprive the landowner of basic property rights, one of which is the right to secure as great a return from the ownership of real estate as the economic posi-

tion of the landlord will permit. It is as much a part of the landlord's property right that he shall be able to increase his rent to a point as high as he can secure in time of shortage of houses as it is that he may keep trespassers off the premises. It is a fundamental right of property which is characteristic of all purely private property. At a time when the earning power of his real estate has greatly increased because of the demand for housing facilities and a shortage thereof, the legislature limited that right of property, and this the Court sustained, because of the emergency.

It does not explain these cases to say that the Commission set up by the law was authorized to fix a *reasonable rental* and that that reasonable rate may be as high as he could otherwise secure, for obviously that would have defeated the very purpose which the law was set out to accomplish. The Court so indicates, saying at page 157: "It may be assumed that the interpretation of 'reasonable' *will deprive him in part at least of the power of profiting by the sudden influx of people to Washington* caused by the needs of government and the war, and thus of a right usually incident to fortunately situated property—of a part of the value of his property as defined in *International Harvester Co. v. Kentucky*, 234 U. S. 22; *Southern Railroad Co. v. Greene*, 216 U. S. 400, 414." (Our italics)

What was the justification of this taking of the landlord's most valuable right of property, namely, the right to as great a return as business conditions and the situation of his property will permit? A justification offered was that the rental of dwellings had become a public utility but this argument put forward at great length by counsel was not adopted by the Court. Housing was not then, and is not now, a public utility enterprise. The justification which was adopted by the Court was simply and solely that *under the acute economic emergency* which existed in Washington at that time the legislature was justified *for a temporary period and to meet a particular emergency condition, to modify the ordinary rules of the protection of property which prevailed in normal times.* That the grave social crisis involved in the housing shortage was the sole justification for the taking of property which could not have been supported in normal times, is made wholly clear by the fact that once the emergency had

passed the statutes no longer retained their validity. *Chastleton Corporation v. Sinclair,* 264 U. S. 543 (1924).

The same problem arose in the case of other emergency rent laws, among them *Marcus Brown Holding Co. v. Feldman,* 256 U. S. 170, and *Levy Leasing Co. v. Siegel,* 258 U. S. 242. These latter cases involved statutes of the State of New York. In the latter case the Court referred to the statutes as being "emergency" enactments and said:

> "The warrant for this legislation resorting to the police power was the conviction on the part of the state legislators that there existed in the larger cities of the state a social emergency, caused by an insufficient supply of dwelling houses and apartments, so grave that it constituted a serious menace to the health, morality, comfort, and even to the peace of a large part of the people of the state. That such an emergency, if it really existed, would sustain a resort, otherwise valid, to the police power for the purpose of dealing with it, cannot be doubted, for unless relieved, the public welfare would suffer in respects which constitute the primary and undisputed, as well as the most usual, basis and justification for exercise of that power."

In this case reports were submitted to the legislature showing the nature of the emergency in the housing situation. These reports on economic conditions are strictly analogous to the reports on economic conditions in this state and in the country at large which, at the request of the Commission, were made a part of the present record.

(5) To be fair the return should equal the returns earned at the time of the rate order by other business enterprises with comparable risks, in the same part of the country

There are few businesses with so small a degree of risk and uncertainty as that involved in the business of the Wisconsin Telephone Company. We do not know of any other business in this state of any magnitude in which there is as little risk, over a period of time, and certainly at the time of this order none having *less* risk. We make this assertion fully aware of the losses in volume suffered in recent months by the Telephone Company, but also giving recognition to the remarkable fact that in the generally disastrous year

1931 this Company lost only a fraction of a per cent in its exchange business. This is below the average loss for the Bell System in the country as a whole, and far less loss than that suffered by any other business of comparable size of which we have any knowledge.

It is important, in this connection, to bear in mind that the Company has no competition in its local exchange operations—the bulk of its business, by far. Freedom from competition and the essential nature of its service give this Company a position of stability and certainty which no other business enjoys in as great measure. The most cogent proof of this stability, year in and year out, is the remarkable record of earnings of this Company over an extended period.

Nothing could better demonstrate the extraordinary stability of the telephone company's business than the record of earnings which is herein reviewed. It shows that through good times and bad this Company has prospered to a remarkable extent. In the period covered by the foregoing discussion there have been several business depressions, one of them, that in 1921, being a drastic disturbance resulting in terrific losses to most lines of business. In all this period, however, the Wisconsin Telephone Company has continued on its way almost unaffected by unfavorable general business conditions and building up surplus at the extraordinary rate referred to later in this opinion.

The only genuine hazard we can foresee is that it will fail to keep its rates low enough to continue to hold the business of that portion of its subscribers who can only afford telephone service if the cost is low. The only businesses comparable for stability are the electric and gas utilities of the state. But it would beg the whole question if we are to give weight to the returns now earned by these public utilities in judging the reasonableness of the Telephone Company's return, when the Commission has under investigation, either in formal proceedings or informal negotiation, the reasonableness of the rates and return of these very companies used for comparison. Upon its own motion the Commission has instituted investigations into the reasonableness of the rates charged by most of the electric and gas utilities in the state,

and is now considering the fairness of reductions which it has proposed that most of these companies put into operation voluntarily.

But even if the comparison were possible it must be admitted that, upon most scores, the Telephone Company is the more favorably situated as to risks. Electric industrial power, as is well-known, is highly competitive. Gas is another extensively competitive service, with risks far greater than those which affect the Telephone Company. Industrial gas must compete with butane volatile oils; house heating gas competes, or seeks to compete, with coal and fuel oil. The likelihood that natural gas will be brought to Wisconsin from Chicago, where it has been piped from the Texas Panhandle, produces a situation of great hazard and uncertainty for gas companies in the state lest large portions of their investment in manufacturing equipment be rendered obsolete and valueless.

Furthermore, the capital turnover ratio of the telephone business—i.e., the amount of capital required to produce a given amount of gross revenue—is far better than either gas or electric. The Telephone Company's ratio is 3 to 1. The commonly used ratio for gas and electric companies is 4½ or 5 to 1.

The return earned by other business enterprises with risks which are now greater—i.e., general unregulated commerce and industry—is far below the return we are finding to be fair for this Company. This finding is predicated upon common knowledge, supplemented by the testimony and exhibits on income tax statistics in this record, which while subject to some criticism establish the fact with clarity. There are few corporations in this state, utilities aside, which are now earning more than their fixed charges, taxes and depreciation. Our order permits, in addition to such return, enough to pay preferred dividends and a liberal common dividend, without dipping into the large surplus which the Company has accumulated in times of normal business activity to take care of rainy day needs.

Dividend Record

Wisconsin Telephone Company has paid a dividend on common stock *every year* during the 48 years of its existence since its incorporation in 1882.

In 44 of those years, the dividend was 6% or higher and for 30 years the dividend was a flat 8%, at which level it has remained constantly from 1911 through 1931. In only 4 years out of 48 did the Company fall below 6% in its common stock dividend and in only 2 years was the dividend below 5%, namely, in 1901 when it was 4¾ and in 1902 when it was 3-7/10. It has never been below 6% since 1908.

Naturally the Company has in addition paid its preferred stock dividends without interruption, its fixed charges and all of its operating expenses.

Growth in Surplus

During these same years of phenomenal dividend stability, the Company has built up moreover a formidable surplus which stood on December 31, 1931, at approximately $9,000,000 or almost 25% of the common stock outstanding.

On January 1, 1915, the surplus was $888,497. This increased to $9,430,341 at December 31, 1930. One year later, it had receded to $8,727,779 because the payment of an 8% dividend of $3,200,000 on the $40,000,000 par value of common stock required the use of $692,701 of surplus previously accumulated. Even when consideration is given to the decline in 1931, the surplus at the end of that year was $7,839,282 more than on January 1, 1915. That is, during the 17 years, the surplus increased 882%. During the same period, from January 1, 1915, to December 31, 1931, the par value of common stock outstanding increased from $9,012,000 to $40,000,000, an increase of 344%. The rapid and substantial growth of surplus and of the par value of common stock outstanding are shown by the following table which gives, also, the book value per share of common stock at the close of each year. The par value of one share is $100. This table has been constructed from Exhibits C-1 and C-2.

December 31	Par value of common stock	Surplus	Total book value of common stock	Book value per share
1914	$ 9,012,000	$ 888,497	$ 9,900,497	$ 109.86
1915	9,012,000	1,303,903	10,315,903	114.47
1916	10,000,000	1,766,330	11,766,330	117.66
1917	11,000,000	2,007,139	13,007,139	118.25
1918	11,000,000	2,182,134	13,182,134	119.84
1919	11,000,000	2,182,673	13,182,673	119.84
1920	11,000,000	2,138,749	13,138,749	119.44
1921	11,000,000	2,439,743	13,439,743	122.18
1922	11,000,000	2,682,700	13,682,700	124.39
1923	15,200,000	3,343,355	18,543,355	122.00
1924	18,700,000	3,693,653	22,393,653	119.75
1925	21,000,000	4,266,507	25,266,507	120.32
1926	21,750,000	5,011,727	26,761,727	123.04
1927	22,000,000	6,357,049	28,357,049	128.90
1928	25,650,000	7,853,220	33,503,220	130.62
1929	28,000,000	9,344,406	37,344,406	133.37
1930	28,000,000	9,430,341	37,430,341	133.68
1931	40,000,000	8,727,779	48,727,779	121.82

It will be observed that on December 31, 1931, the book value of a share of common stock was $121.82 as compared with $133.68 one year earlier. This decline was due to two conditions: (1) an increase of $12,000,000 in the stock outstanding and (2) a decline of $702,562 in the surplus because the payment of the 8% dividend on common stock required the use of $692,701 of surplus previously built up. On December 31, 1930, the Wisconsin Telephone Company owed its parent corporation $12,000,000 on demand notes and open accounts on which 5.88% interest was paid. In January, 1931, these obligations were cancelled by the issuance of an equal amount of common stock on which a dividend of 8% was paid thereafter. This substantial increase in the stock outstanding contributed largely to the reduction in the book value per share of stock. The decline in the book value per share of stock which occurred in 1924 was caused by an increase in the number of shares outstanding and not by a decline in surplus.

Worthy of attention at this juncture is the fact that interest on the $12,000,000 owed to American Telephone and Telegraph Company would have cost $705,600 during 1931, or $254,400 less than the dividend of $960,000 which was paid

on the additional $12,000,000 of common stock issued to the holding company.

Depreciation Reserve

During these 17 years, when the surplus increased $7,839,282, the Company increased its depreciation reserve from $4,399,643 at January 1, 1915, to $16,194,447 at the close of 1931 on $57,594,818 of depreciable plant and equipment. The Commission is of the opinion that the reserve on exchange property, which accounts for $13,891,227 of the total reserve at December 31, 1931, is more than adequate to cover the requirements. In fact, it has been shown that on several classes of exchange plant and equipment the depreciation already accrued is in excess of the amount which the Company estimates as necessary to provide for retirement losses.

In brief, the Company has earned during the 17 years an average of $11.22 per share on its common stock, has paid $8 a share regularly thereon as dividends, has increased surplus at an average rate of $3.22 a share and thereby built up a large surplus, has added to its depreciation reserve almost 12 million dollars.

(6) The utility's needs for new capital should be considered since the return should be such as under present day conditions will enable it to raise whatever capital it requires

At the present time the Company's needs for new capital are very slight, will be negligible during the coming year during which this order is effective, and probably will not be great for some time to come. The reason is that during recent years the Company has expanded its facilities at a very rapid rate in anticipation of a growth in demand which has not been realized for the system as a whole. In fact far from there being any need for new capital for increased facilities, there is every reason to believe from this record that the present plant is considerably overbuilt and that there is substantial excess capacity, even if there is no further loss of subscribers, certainly for the period covered by our order. The loss of subscribers which is going on at the present time, without more, negatives any necessity for increased plant on

any substantial scale, and negatives any possibility of the need for new capital in any substantial sums.

We, therefore, find that this Company has no present need and will have no need during the period covered by this order for substantial amounts of new capital. When our permanent order is entered, to cover a considerable period of years, a different situation may appear, and can be passed upon at that time. None of the considerations which will be pertinent to determine in the permanent order are here involved, for we are merely finding that pending the completion of our investigation and the issuance of a permanent order, and in any event for a period not more than a year, it is clear and we so expressly find, that the Company has no need for substantial amounts of new capital and that the return which is provided for by this order will make it possible for the utility under present existing business conditions to attract whatever capital in relatively small quantities may be necessary for the carrying on of the business during a time of general economic stagnation.

(7) The return should be such as will maintain the credit of the utility, in the light of presently existing business conditions and opportunities for capital in other enterprises

A careful study of the past financial record of the Company, its existing position as one of the two or three most profitable and stable units in the entire Bell System, and the alternative opportunities for investment by capital, and other relevant considerations, have led us to the conclusion, and we so find, that the rates which we have found to be reasonable and the return which we have found to be fair for the period of this order, will in no wise impair the credit of this essential industry. If we had any doubts on this score we would be slow, indeed, even in the face of other compelling facts, to require the reduction in rates which we are this day ordering.

Under the business conditions which exist today a return which the rates ordered will permit, particularly for the limited period fixed by this order, cannot and will not impair the credit of the utility and will permit its credit to be maintained. It must be remembered that the maintenance of credit is a relative matter.

In good times, so-called, that is, times of more or less normal business activity, to maintain the credit of a particular utility will require far more liberal net earnings than in times of business stagnation, because credit itself is a standard which is *relative*. Many, if not most other applicants for credit in the business world now have either no earnings or virtually no earnings, and this utility and possibly one or two other groups of utility operating companies remain among the few desirable credit risks. The Company's credit continues to be maintained and its credit position is attractive so long as its earnings under this order put it in a position which is far above that of the other competitors for capital and for credit. This our order provides for.

In short, in determining whether the return will maintain the credit of the utility, general business conditions must be considered, and as the Supreme Court has pointed out, opportunities for capital elsewhere must be given great weight. Under existing general business conditions the credit position of this Company is relatively very attractive. We have no hesitancy in finding and do hereby expressly find that the return allowed will maintain the credit of the utility.

Finding on Return

The Public Service Commission of Wisconsin therefore finds the fact to be that the rates fixed by this order will produce a fair and reasonable return to the Wisconsin Telephone Company. This finding of fact represents an exercise of judgment in the light of the particular facts which are of record in this proceeding, and of which judicial notice can be taken. In reaching this finding of fact the Commission has given effect to present day conditions, to general conditions affecting all business, to the fact that the return allowed exceeds the returns of other business having comparable risks in the same part of the country at this time, that the return will permit the utility to attract capital such as may reasonably be expected to be required and that the return is such that it will maintain the credit of the utility in the light of present conditions and opportunities for capital in other enterprises.

PROCEDURE FOR MODIFICATION OF ORDER

Business conditions are so uncertain in a period such as we are now passing through that any rates for the future, even when fixed for a temporary period, may require interim adjustment because of conditions not foreseeable at the time the order was entered. For example, it is likely that a reduction in the charges for telephone service such as is here ordered will tend to increase the volume of business done, or stop the loss of business being suffered in recent months, and this may so increase the Company's revenues as to produce net income considerably in excess of the return herein contemplated. Or, on the other hand, general business conditions may become so unfavorable that revenues realized will fall substantially short of those upon which we have based our computations, which may result in injury to the Company which should be corrected by an amendment to our order. The present decline in materials, supplies and labor may continue to such a degree as to substantially lower the Company's costs of operation, in which case the Commission may find it necessary, to protect subscribers' interests, to revise this order to take account of these savings.

For these reasons, and to prevent injury to any party to this proceeding the Commission is hereby expressly retaining jurisdiction to modify the order upon our own motion, or upon petition of the Company or any other party, upon the ground that the order is in any respect incorrect, unjust or unreasonable. The Commission is ordering that any such petition shall be entertained at any time during the period of the temporary order, and considers itself bound to hear and pass upon testimony submitted by any party to this proceeding, or any proper intervenor, to the effect that the temporary order should be modified or rescinded for any legal cause. This provision is distinct and apart from the provisions respecting rehearing set up in the statutes.

Because of the uncertainties which prevail today affecting volume of business and costs of operation, the Commission will keep a check on the realized effects of this present order in its actual operation. We are ordering the Company to submit monthly reports reflecting changes in gross reve-

nues and in operating costs related to exchange business during the period covered by this temporary order so that we will be in a position to determine, as a result of this test in actual operation, how the order is working out in practice, and be in a better position to modify the order if the facts require. As to the wisdom of a test period, see *Willcox v. Consolidated Gas Co.*, (1909) 212 U. S. 19, 50; *Cedar Rapids Gas L. Co. v. Cedar Rapids*, (1912) 223 U. S. 655, 667; *Lincoln Gas & E. Co. v. Lincoln*, (1919) 250 U. S. 256; *Darnell v. Edwards*, (1917) 244 U. S. 564; *Brush Electric Co. v. Galveston*, (1923) 262 U. S. 443, 446.

FINDING OF UNREASONABLENESS AND REASONABLENESS

We find that the present rates of Wisconsin Telephone Company for exchange service, except those which are not modified by this order, are unjust and unreasonable and that the rates which are to be made effective under the terms of this order are just and reasonable rates to be applied for a temporary period in accordance with the terms of the order.

We make no finding as to the reasonableness of rates for toll service.

IT IS THEREFORE ORDERED, That for service rendered on and after the beginning of the first billing period subsequent to July 31, 1932, Wisconsin Telephone Company shall place in effect for all classes of exchange service and equipment for which rate schedules are on file with the Commission, including all miscellaneous and incidental services and equipment, a schedule of rates 12½% less than the schedule in force at the date of this order, except as hereinafter provided.

Rates so placed in effect shall be effective for a period of one year unless the Commission shall in the meantime alter or amend this order.

Rates applicable to public pay stations, outgoing message rates applicable to private branch exchange service in hotels, station rentals applicable to private branch exchange service to hotels in Milwaukee and Darlington, charges for leased exchange telephone typewriter service, special employees' rates, and service connection charges are not affected by

this order except that, in connection with leased exchange telephone typewriter service, the rental charges for exchange circuit shall be subject to the same reduction herein provided for exchange service generally.

For semi-public pay station service furnished under rate schedules filed with the Commission, the guarantee shall be reduced 12½%, and shall permit the use of the same number of messages whose use is permitted under schedules in effect at the date of this order. For excess messages, no change in the message rate or in the commission payment is required.

IT IS FURTHER ORDERED That the reduced schedule of rates hereby provided shall be made effective by applying to the net amounts, which would be due under schedules now on file, a discount of 12½%, and that the differential for failure to pay bills promptly shall be the same amount to be added to the net bills as so discounted as is to be added to the net rates on file with the Commission at the date of this order in accordance with the rules of the Company.

IT IS FURTHER ORDERED That Wisconsin Telephone Company, beginning with the twenty-fifth day of August, 1932, and not later than the twenty-fifth day of each succeeding month during the period when this order is in effect, shall render a monthly report to this Commission in the same form and containing the same information as its monthly financial and operating report.

IT IS FURTHER ORDERED That complete jurisdiction is retained to alter, amend, or revoke this order at any time during the period for which it is made effective, by the procedure hereinbefore described and provided.

Dated at Madison, Wisconsin, this 30th day of June, 1932.

PUBLIC SERVICE COMMISSION OF WISCONSIN

THEODORE KRONSHAGE, JR.
Chairman

A. R. McDONALD
Commissioner

DAVID E. LILIENTHAL
Commissioner

ATTEST:

WM. M. DINNEEN
Secretary

GLOSSARY OF TECHNICAL TERMS USED IN THIS OPINION

"A" Board—"A" Operator. In a large exchange it is impossible to connect all subscribers' lines to the same switchboard. Under such conditions the calling subscriber is answered at the "A Board" by the "A Operator" who transmits the call to the "B Board" perhaps located in another central office, where the "B Operator" makes the connection to the called subscriber's line.

"A—B" Toll Call. A toll call handled direct from the local operator in one city to the local operator in an adjacent city without passing thru the hands of the toll operators.

Aerial Plant. Poles, overhead wires and cables, etc., as distinguished from underground plant.

Answering Jack—see Jack.

"B" Board—"B" Operator. See "A" Board.

Battery Drain. The quantity of electrical energy drawn from a storage battery.

Bell Rang Report. A call from a subscriber to the operator reporting that the subscriber's bell rang, there being no calling party on the line.

Cable. A bundle of copper wires insulated from each other and all enclosed in a lead sheath. If suspended overhead it is an "aerial cable". If pulled into underground duct or buried it is an "underground cable". If specially protected and laid on the bottom of a body of water it is a "submarine cable".

Carrier System. A system of sending several conversations over a single circuit, separating them at the receiving end much as programs may be chosen by tuning a radio set.

Central Office. The office from which lines radiate to the subscribers. The term is usually used collectively to include the central office and all the equipment it contains. In a large exchange containing several central offices, two or more are likely to be located in one building, the term relating to the office and equipment rather than to the office building.

Central Office Equipment. The equipment of a central office, consisting of switchboards, distributing frames, cable racks, storage batteries, wiring, etc.

Coin Box. A device attached to a telephone instrument which receives coins and notifies the operator that they have been deposited.

Commercial Expense. The cost of operating the business office of a telephone company, including cost of rendering and collecting bills, accounting for revenue, advertising, soliciting, etc.

Conductor. Something that conducts electricity. In general use almost synonymous with "wire".

Conductor pair. A pair of wires for conducting electricity. Telephone lines usually consist of two wires and are often installed, handled, and spoken of in "pairs".

Conduit. An underground structure in which underground cables are placed. Each passageway in the conduit is called a "duct". The conduit is usually installed in the bottom of a trench and the cable pulled into the ducts as needed.

Dial. The type of equipment used in a central office and on the subscriber's premises when the connections between subscribers' lines are made mechanically, instead of manually, and controlled by operation of a dial on the subscriber's instrument.

Dial Conversion. The process of converting a central office and connected subscribers' stations from manual to dial operation. Usually involves the complete installation of new equipment, a "cut over" and the final removal of the old equipment.

Drop Wire. A pair of insulated wires, twisted or braided together. Formerly used between the subscriber's premises and the nearest pole, now also used along the pole line to the cable terminal.

Duct.—See "conduit".

Exchange System. A telephone system in a single community, operated as a unit and used largely for handling local calls between subscribers in the one community, is known as an "exchange". All of the exchanges operated by a telephone company constitute its "exchange system", as distinguished from the "toll system" consisting of the

long distance lines connecting the separate cities and exchanges.

Extension station. An auxiliary telephone instrument connected to the same line as a "main station", for instance on another desk in the same office, or in another room in the same residence.

Holding Time. The time, usually measured in seconds, during which a line or piece of equipment is in use in making a call.

Intercepted Call. A call which cannot be completed in the usual routine, but must be handled by a special operator, for instance a call to a number which has been changed, or one for a non-existent number on which the party is given the information operator.

Intercommunicating Call. A call from one station to another of a Private Branch Exchange.

Interior Block Wires. Wires or cables from the wires or cable in the street to the point where connection is made to the inside wiring of a building.

Jack. A device at the termination of a telephone line on a switchboard by means of which connection can conveniently be made to the line. There are usually one "answering jack" where calls from the subscriber are answered, and several "multiple jacks", one within reach of each operator, to any one of which connection may be made when calling the subscriber.

Local Switchboard. Part of the switchboard equipment of a central office at which connections are made to local subscribers' lines, as distinguished from the "toll board" where connections are made to long distance lines.

Maintenance Expense. The cost of keeping the telephone company's plant in condition to render service, including the cost of repairs, moving and changing subscribers' stations and similar items. As used in this opinion the term "maintenance" does not include depreciation expense.

Main Station. The telephone instrument, bell box and associated wiring is known as a "station". The principal station on the subscriber's premises which is connected directly to the central office by an individual or party line is known as a "main station" as distinguished from an "extension station", etc.

Manual. The type of equipment used in the central office and on the subscriber's premises when the connection between lines at the central office is made manually by an operator at the spoken direction of the calling subscriber.

Multiple Jack.—See Jack.

Originating Call. A telephone call initiated by a subscriber connected to the line or exchange under consideration, as distinguished from a "terminating call" which comes to the subscriber, line or exchange under consideration from another subscriber, line or exchange.

Outside Plant. Pole lines, overhead and underground cable, underground conduits, etc. as distinguished from "inside plant", such as central office and station equipment.

P.B.X. Abbreviation for Private Branch Exchange, which see.

Pair. The line or wire connection to a telephone usually consists of two wires or conductors. The wires in a cable or on a line are therefore used and handled in groups of two, which are known as "pairs".

Pair Foot. A unit of measure of the length of telephone wire, equivalent to two wires one foot in length. A 25 pair cable one foot in length would contain 25 pair feet or 50 conductor feet. See "pair".

Peg Count. A count of the number of calls handled. Usually made periodically but also on special occasions. The name is probably derived from the mechanical means originally used in counting the calls.

Plant Department. The department of the telephone Company's organization whose duty it is to build and maintain the physical facilities for handling calls. Distinguished from the "Traffic Department" which handles the calls themselves and the "Commercial Department" which handles the business relations with the subscribers and public.

Power Plant. The storage batteries, battery charging equipment and related apparatus used to supply electrical energy for the operation of the central office and telephone lines connected thereto.

Private Branch Exchange. A switchboard located on a subscriber's premises, by means of which a number of telephones on the subscriber's premises may be connected with each other or with the central office.

Public Pay Station. A telephone instrument with coin box installed in a public place for the use of the public generally, and not for the use of any individual subscriber. An illustration is a coin box telephone in the lobby of an office building or railroad station. See also "Semi-Public Pay Station".

Repeater. A vacuum tube device, similar to the amplifier of a radio set, installed in a telephone line to offset the loss in a long line and improve the quality of transmission.

Semi-Public Pay Station. An instrument with coin box installed for the use of a subscriber but accessible to others. An illustration is a coin box telephone in a small drug store or barber shop used by the proprietor and listed in the directory under his name but also accessible for use by his customers and others as a public pay station.

Service Life. The life in actual service of an item of physical property, from the date of installation to the date of removal.

Service Station. A subscriber's station not owned or maintained by the Company but connected to its switchboard. Frequently found in rural districts where farmer-owned lines are connected to the Company's switchboard and calls are switched by the Company's operators.

Station. A telephone instrument installed on the user's premises, including any auxiliary devices, wiring, etc. Stations are classified as "main stations", "extension stations", etc.

Subscribers' Line Holding Time. The time a subscribers' line is in actual use in connection with a call. The term is also used in a collective sense to denote the total time in use of many lines in connection with many calls.

Switchboard. A piece of equipment at which telephone lines terminate in such a way that connection can conveniently be made between them.

Switchboard Position. The portion of a switchboard which is usually handled by an individual operator.

Terminating Call. See "Originating Call".

Toll Switchboard. A switchboard on which long distance or toll lines terminate and where connections are made to such lines.

Toll System. The system of lines and related facilities connecting separate cities and exchanges by means of which toll or long distance messages are handled, as distinguished from the "exchange system" used largely for local conversation.

Traffic Expense. The expense of handling the traffic of a telephone system, including such items as operators' wages, operators' training, service inspection, electrical power for transmission and signalling, supervision, etc. Distinguished from "Maintenance Expense" and "Commerical Expense".

Traffic Unit. A measure of the amounts of work required of operators in handling calls of various kinds, usually used in comparing the efficiency of operators or equipment, in setting up standards of performance, determining the number of operators required and for similar purposes.

Transmission Power. The name of an operating expense account to which is charged the cost of purchasing electricity, operating storage batteries, etc. for supplying electrical energy for transmitting messages and operating signals.

Trunk Line or Trunk. A line over which subscribers' messages are sent between two central offices within the same exchange or between a central office and a Private Branch Exchange. Distinguished from a "subscriber's line" which connects a subscriber's station with a central office.

Trunked Call. A telephone call which is handled over a trunk line, as distinguished from a call completed by connecting two subscribers' lines at one switchboard without the use of an intervening trunk line.

Underground Plant. Underground conduits, cables, etc. as distinguished from "aerial" or "overhead plant".

Working Line. A line from a central office to one or more subscriber's stations.

[fol. 25-1] EXHIBIT "C" TO BILL OF COMPLAINT

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

2-U-35

In the Matter of the State-wide Investigation, on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the WISCONSIN TELEPHONE COMPANY

Wisconsin Telephone Company (hereinafter sometimes referred to as the "Telephone Company"), being a party to the above entitled proceeding, hereby applies to the above named Public Service Commission of Wisconsin (hereinafter sometimes referred to as the "Commission") for a rehearing in respect to each and every of the matters determined in said proceedings, and particularly to the decision, order and determination of said Commission in the above entitled matter, dated June 30, 1932 (hereinafter sometimes referred to as the "Commission's Order").

The grounds on which the said applicant, Wisconsin Telephone Company, considers, claims and maintains, as the fact is, that said Commission's Order so made in the above entitled proceeding is unlawful and unreasonable are the following:

1. Said Commission's order is not authorized by any statute or law of the State of Wisconsin.

2. Said Commission's Order is not warranted by or in accord with the facts.

3. Irrespective of the inadequacy and incompleteness of [fol. 25-2] the record, there is no evidence in the record to warrant or justify said Commission's Order.

4. Said Commission has no jurisdiction or power to make any temporary order, whether under Section 196.70 of the Wisconsin Statutes or otherwise, without notice and hearing thereon; and no notice was given or hearing had with relation to the said Commission's Order.

5. There was not at any time and there is not now any emergency under or as referred to in Section 196.70 of the

Wisconsin Statutes, and there is no evidence in the record in the above entitled proceeding establishing or showing any such emergency. No injury to the business or interests of the people or of any public utility exists or has been threatened by reason of or in connection with the exchange rates of said Telephone Company.

6. The alteration and change in the rates of said Telephone Company ordered in said Commission's Order was not necessary to prevent injury to the business or interests of the public or any public utility, and such alteration and change of rates of sa-d Telephone Company so ordered by said Commission will not prevent any injury to the business or interests of the people or of any public utility.

7. The present rates and charges of said Telephone Company for all classes of exchange service and equipment are less than just and reasonable rates and charges and are not sufficient to yield to said Telephone Company a fair return upon the fair value of its property used and useful in rendering said service. The present rates and charges for the entire intrastate services, including toll and exchange services, of said Telephone Company, are less than just and reasonable rates and charges and are not sufficient to yield to said Telephone Company a fair return upon the fair value of its property used and useful in rendering said services. The rates prescribed in said Commission's Order will further greatly reduce said Telephone Com- [fol. 25-3] pany's earnings from its said exchange service and from its entire intrastate services and will confiscate the property of said Telephone Company and deprive said Company of property without due process of law and will be in violation of Article I of the Constitution of the State of Wisconsin and particularly of Sections 1 and 22 of said Article and also in violation of the Fourteenth Amendment of the Constitution of the United States.

8. The present rates of said Telephone Company for exchange service yielded said Company for the year 1931 a return (sometimes designated as "operating income") of $2,331,571, which return was less than 4.4% on said Company's average investment during said year in its exchange plants and equipment alone (not including working capital, stores and supplies and going value), which was not less

than $53,515,430; and such return was less than 3.9% on its average investment during said year in its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, which was not less than $59,863,570; and such return was less than 4.2% on the fair value of the average amount of property of said Telephone Company during said year used and useful for furnishing the exchange service covered by said rates, which value was not less than $57,895,026.

9. The present rates of said Telephone Company for exchange service yielded said Company during the first five months of the year 1932 (being the latest period for which information is available) a return (sometimes designated as "operating income") of $962,107, which return was at the rate of less than 4.2% per annum on said Company's average investment during said period in its exchange plants and equipment alone (not including working capital, stores and supplies and going value) which was not less than $55,644,747; and such return was at the rate of less than 3.8% per annum on its average investment during such period in its exchange plants and equipment, plus its stores and supplies, working capital and going value allo- [fol. 25-4] cable thereto, which was not less than $62,030,-443; and such return was less than 4.0% on the fair value of the average amount of property of said Telephone Company during said period of five months, used and useful for furnishing the exchange service covered by said rates, which value was not less than $57,903,995.

10. The present rates of said Telephone Company for its entire telephone business yielded said Company for the year 1931 a return (sometimes designated as "operating income") of $2,891,481, which return was less than 4.0% on said Company's average investment during said year, in its plant and equipment alone (not including working capital, stores and supplies and going value) which was not less than $72,513,126; and such return was less than 3.6% on its average investment during said year in its plant and equipment, plus its stores and supplies, working capital and going value, which was not less than $81,135,066; and such return was less than 3.9% on the fair value of the average amount of property of said Telephone Company during said year, used and useful for furnishing the telephone

service covered by said rates, which value was not less than $76,066,979.

11. The present rates of said Telephone Company for its entire telephone business yielded during the first five months of the year 1932 (being the latest period for which information is available) a return (sometimes designated as "operating income") of $1,036,526, which return was at the rate of less than 3.3% per annum on said Company's average investment during said period in its plant and equipment alone (not including working capital, stores and supplies and going value) which was not less than $75,529,369; and such return was at the rate of less than 3.0% per annum on its average investment during such period in its plant and equipment, plus its stores and supplies, working capital and going value, which was not less than $84,204,134; and such return was less than at the rate of 3.2% per annum on the fair value of the average amount of property [fol. 25-5] of the said Telephone Company during said period of five months, used and useful for furnishing the telephone service covered by said rates, which value was not less than $78,925,233.

12. The present rates of said Telephone Company for intrastate exchange service (consisting of intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business) yielded said Company for the year 1931 a return (being the intrastate portion of "operating income") of not more than $2,310,000, which return was less than 4.5% on said Company's average investment during said year in that portion of its exchange plants and equipment allocable to said intrastate exchange service (not including working capital, stores and supplies and going value) which investment was not less than $52,520,000; and such return was less than 4.0% on its average investment during said year on said portion of its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, which was not less than $58,750,000; and such return was less than 4.3% on the fair value of the average amount of property of said Telephone Company during said year, used and useful for furnishing said intrastate exchange service, which value was not less than $54,850,000.

13. The present rates of said Telephone Company for intrastate exchange service (consisting of intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business) yielded said Company during the first five months of the year 1932 (being the latest period for which information is available) a return (being the intrastate portion of "operating income") of not more than $946,000, which return was less than at the rate of 4.2% per annum on said Company's average investment during said period in that portion of its exchange plants and equipment allocable to said intrastate exchange service (not including working [fol. 25-6] capital, stores and supplies and going value) which investment was not less than $54,655,000; and such return was less than at the rate of 3.8% per annum on its average investment during said period on said portion of its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, which was not less than $60,930,000; and such return was less than at the rate of 4.0% per annum on the fair value of the average amount of property of said Telephone Company during said period, used and useful for furnishing said intrastate exchange service, which value was not less than $56,875,000.

14. The present rates of said Telephone Company for its entire intrastate telephone business (consisting of its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to subscriber-station service on interstate toll calls, (b) interstate exchange service, and (c) that portion of the toll business consisting of interstate toll calls) yielded said Company for the year 1931 a return (being the intrastate portion of "operating income") of not more than $2,710,000, which return was less than 4.0% on said Company's average investment during said year on its plant and equipment allocated to said instrastate business (not including working capital, stores and supplies and going value) which investment was not less than $67,905,000; and such return was less than 3.6% on its average investment during said year on the said portion of its plant and equipment, plus its stores and supplies, working capital and going value allocable thereto, which was not less than

$75,980,000; and such return was less than 3.9% of the fair value of the average amount of property of said Telephone Company during said year allocable to said intrastate business, used and useful for furnishing the said intrastate telephone service, which value was not less than $71,230,000.

15. The present rates of said Telephone Company for its entire intrastate telephone business (consisting of its [fol. 25-7] entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls; (b) interstate exchange service; and (c) that portion of the toll business consisting of interstate toll calls) yielded said Company during the first five months of the year 1932 (being the latest period for which information is available) a return (being the intrastate portion of "operating income") of not more than $970,000, which return was less than at the rate of 3.3% per annum on said Company's average investment during said period on its plant and equipment allocated to said intrastate business (not including working capital, stores and supplies and going value) which investment was not less than $70,965,000; and such return was less than at the rate of 3.0% per annum on its average investment during said period on the said portion of its plant and equipment, plus its stores and supplies, working capital and going value allocable thereto, which was not less than $79,115,000; and such return was less than at the rate of 3.2% per annum of the fair value of the average amount of property of said Telephone Company during said period allocable to said intrastate business, used and useful for furnishing the said instrastate telephone service, which value was not less than $74,155,000.

16. The present rates for exchange service and also the present rates for toll service of said Telephone Company are less than the value of the services rendered by said Company therefor.

17. It is not the fact and there is no evidence in the record showing or purporting to show that the exchange services rendered by said Telephone Company affected by

said Commission's Order are not reasonably worth the rates now being charged therefor.

18. It is not the fact and there is no evidence in the record showing or purporting to show that any threatened or actual loss of utility service to any number of Wis- [fol. 25-8] consin consumers results from the present rates of said Telephone Company for exchange service.

19. The reduction of said Telephone Company's rates directed by said Commission's Order would not enable the procuring of telephone service by any persons, much less any substantial number of persons, who would not be able to afford exchange telephone service at the present rates therefor.

20. The rates for telephone service ordered by said Commission's order are less than reasonable and just rates; and the reduction in rates for telephone service ordered by said Commission in said Commission's Order will deprive said Telephone Company of property without due process of law and deny to said Telephone Company the equal protection of the laws, and said Commission's Order is confiscatory and in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and also in violation of the Fourteenth Amendment of the Constitution of the United States and is illegal, unconstitutional and void.

21. The reduction of rates of the Telephone Company provided by said Commission's Order as applied to said Company's exchange telephone business for the year 1931 would yield said Company a return (sometimes designated as "operating income") of $1,053,955, which return would be less than 2.0% on said Company's average investment during said year, in its exchange plants and equipment alone (not including working capital, stores and supplies and going value) as hereinbefore stated; and such return would be less than 1.8% of said Company's average investment during said year, in its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than 1.9% on the fair value of the average amount of property of said Telephone Com-

pany during said year, as hereinbefore stated, used and useful for furnishing the exchange service covered by said rates.

[fol. 25-9] 22. The reduction of rates of said Telephone Company provided by said Commission's Order as applied to said Company's exchange telephone business for the first five months of the year 1932 (being the latest period for which information is available) would yield said Company a return (sometimes designated as "operating income") of $463,856, which return would be less than at the rate of 2.1% per annum on said Company's average investment during said period in its exchange plants and equipment alone (not including working capital, stores and supplies and going value) as hereinbefore stated; and such return would be less than at the rate of 1.8% per annum on said Company's average investment during such period in its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than at the rate of 2.0% per annum on the fair value of the average amount of property of said Telephone Company during said period of five months, as hereinbefore stated, used and useful for furnishing the exchange service covered by said rates.

23. The reduction of rates of said Telephone Company provided by said Commission's Order as applied to said Company's entire telephone business for the year 1931 would yield said Company a return (sometimes designated as "Operating income") of $1,663,583, which return would be less than 2.3% on said Company's average investment during said year in its telephone plant and equipment alone (not including working capital, stores and supplies and going value), as hereinbefore stated; and such return would be less than 2.1% on said Company's average investment during said year in its telephone plant and equipment, plus its stores and supplies, working capital and going value, as hereinbefore stated; and such return would be less than 2.2% on the fair value of the average amount of property of the said Telephone Company during said year, as hereinbefore stated, used and useful for furnishing the telephone service covered by said rates.

[fol. 25-10] 24. The reduction of rates of the Telephone Company provided by said Commission's Order as applied to said Company's entire telephone business for the first five months of the year 1932 (being the latest period for which information is available) would yield said company a return (sometimes designated as "operating income") of $555,394, which return would be less than at the rate of 1.8% per annum on said Company's average investment during said period, in its plant and equipment alone (not including working capital, stores and supplies and going value) as hereinbefore stated; and such return would be less than at the rate of 1.6% per annum on said Company's investment during such period in its plant and equipment, plus its stores and supplies, working capital and going value, as hereinbefore stated; and such return would be less than at the rate of 1.7% per annum on the fair value of the average amount of property of said Telephone Company during said period, as hereinbefore stated, used and useful for furnishing the telephone service covered by said rates.

25. The reduction of rates of the Telephone Company provided by said Commission's Order as applied to said Company's intrastate exchange service (consisting of intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business) would yield said Company for the year 1931 a return (being the intrastate portion of "operating income") of not more than $1,035,000, which return would be less than 2.0% on said Company's average investment during said year in that portion of its exchange plants and equipment allocable to said intrastate exchange service (not including working capital, stores and supplies and going value) as hereinbefore stated; and such return would be less than 1.8% on its average investment during said year on said portion of its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than 1.9% on the fair value of the average amount of property of said Telephone Company during said year, used and [fol. 25-11] useful for furnishing said intrastate exchange service, as hereinbefore stated.

26. The reduction of rates of the Telephone Company provided by said Commission's Order as applied to said

Company's intrastate exchange service (consisting of intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business) would yield said Company during the first five months of the year 1932 (being the latest period for which information is available) a return (being the intrastate portion of "operating income") of not more than $450,000, which return would be less than at the rate of 2.0% per annum on said Company's average investment during said period in that portion of its exchange plants and equipment allocable to said intrastate exchange service (not including working capital, stores and supplies and going value), as hereinbefore stated; and such return would be less than at the rate of 1.8% per annum on its average investment during said period on said portion of its exchange plants and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than at the rate of 2.0% per annum on the fair value of the average amount of property of said Telephone Company during said period, used and useful for furnishing said intrastate exchange service, as hereinbefore stated.

27. The reduction of rates of said Telephone Company provided by said Commission's Order as applied to its entire intrastate telephone business (consisting of its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls; (b) interstate exchange service; and (c) that portion of the toll business consisting of interstate toll calls) would yield said company for the year 1931 a return (being the intrastate portion of "operating income") of not more than $1,482,000, which return would be less than 2.2% on said Company's average investment during said year on its plant and equipment al- [fol. 25-12] located to said intrastate business (not including working capital, stores and supplies and going value), as hereinbefore stated; and such return would be less than 2.0% on its average investment during said year on the said portion of its plant and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than 2.1% of the fair value of the average amount of property of said Telephone Company during said year allocable to

said intrastate business, used and useful for furnishing the said intrastate telephone service, as hereinbefore stated.

28. The reduction of rates of said Telephone Company provided by said Commission's Order as applied to its entire intrastate telephone business (consisting of its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls; (b) interstate exchange service; and (c) that portion of the toll business consisting of interstate toll calls) would yield said Company during the first five months of the year 1932 (being the latest period for which information is available) a return (being the intrastate portion of "operating income") of not more than $490,000, which return would be less than at the rate of 1.7% per annum on said Company's average investment during said period on its plant and equipment allocated to said intrastate business (not including working capital, stores and supplies and going value), as hereinbefore stated; and such return would be less than at the rate of 1.5% per annum on its average investment during said period on the said portion of its plant and equipment, plus its stores and supplies, working capital and going value allocable thereto, as hereinbefore stated; and such return would be less than at the rate of 1.6% per annum of the fair value of the average amount of property of said Telephone Company during said period allocable to said intrastate business, used and useful for furnishing the said intrastate telephone service, as hereinbefore stated.

[fol. 25-13] 29. For a long time prior to the 30th day of June, 1932, and on said date and at all times thereafter a return reasonably sufficient to assure confidence in the financial soundness of a telephone utility in Wisconsin and adequate, under efficient and economic management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties, was and is not less than 8% per annum on the property used and useful in the conduct of the business of such telephone utility.

30. For a long time prior to June 30, 1932, and on said date and ever since said date, a fair return on property used and useful in the conduct of a telephone business in Wisconsin was and is not less than 8% per annum.

31. The rates for every telephone service affected by said Commission's Order, whether regarded with reference to said Telephone Company's entire telephone business or its exchange service alone, for a long time have been and now are insufficient, after paying all expenses of operation, setting aside the necessary sums for depreciation and payment of interest, to yield reasonable dividends, and much less to yield, besides reasonable dividends, an addition to be passed to the surplus account.

32. Said Commission's Order reduces said Telephone Company's rates for exchange service so as to provide only revenue to cover merely such operating expenses and alleged return on capital as is allocated by said Commission to local telephone service, although the rates for exchange service were and are designed to cover compensation both for local service and for the portion of the toll service which is furnished through said Company's exchange instrumentalities and exchange operation.

33. Said Commission's Order, while cutting out of said Telephone Company's rates for exchange service, all provision for meeting operating expenses and return on capital on the element of toll service furnished by or through the [fol. 25-14] telephone exchanges, does not make provision for or authorize said Telephone Company to obtain such compensation in other rates or in any other way.

34. The toll rates of said Telephone Company and its connecting companies according to said companies' practice and with the approval and under the orders of said Commission at all times have covered and now cover toll telephone service from toll board to toll board only, and said Commission's Order requires the furnishing of telephone service between the toll board and the subscriber's station in exchanges of said Telephone Company without any compensation to said Telephone Company for such service.

35. The present exchange rates of said Telephone Company include compensation for toll service under a system which said Commission, under its former name of Railroad Commission of Wisconsin, described as one which "amounts to placing in the exchange rates paid by telephone subscribers a small readiness-to-serve charge for the privilege

of connection with toll service" (Re Rock County Farmers Telephone Co., U 3049, 28 W. R. C. R. 49); and with reference to the same, it was further stated by said Commission that "it is our opinion that it constitutes a proper basis for fixing toll rates, and it is, in fact, the basis on which we have established the exchange rates in every case which has come before us and on which we have conducted such investigations as we have made of the toll-rate situation" (28 W. R. C. R. 49), and which system was further approved by said Commission as recently as January 3, 1931 (Re Wisconsin Telephone Company, U 3899); notwithstanding which said Commission's Order eliminates all such provision from the exchange rates, without authorizing compensation to said Telephone Company for said service from any other source.

36. Said Commission's Order (page 74) states that "The Commission holds that the coordinate use of exchange property, of the services of exchange employees, and the responsibility for giving rise to exchange system expenses [fol. 25-15] should be shared by the local business and by the toll business"; and said Order cites in support thereof Smith v. Illinois Bell Telephone Co. (1930), 282 U. S. 133. In said Commission's Order, said Commission fails to note and ignores the fact that reference by said court in said decision to a "separation" relates to separation between interstate and intrastate business as distinguished from a separation between toll and local service and further to a separation of "property, revenues and expenses", and not such a separation as that attempted by said Commission of property and expenses and not revenues.

37. Irrespective of the other respects in which said Order is confiscatory, said Commission's Order is confiscatory and deprives said Telephone Company of property without due process of law and is in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States, and is illegal, unconstitutional and void for the reason that it eliminates from said Telephone Company's exchange rates any provision for toll service furnished through said Company's exchanges as theretofore approved and authorized by said Commission under its

former name, without providing or authorizing any other rates or any other source of compensation for such service.

38. The toll and exchange service of said Telephone Company constitutes a single system, using many common instrumentalities and are essentially similar in all respects excepting that toll service customarily involves the use of two exchanges or switchboards not in the same municipality, and exchange service in most cases involves service within a single municipality, and that in operating practice toll service is regarded and may be directed to a particular person, and aside from the use of exchange terminal facilities, has its rate of charge fixed by the individual call. The only physical or operating relation between the several [fol. 25-16] exchanges of said Telephone Company's statewide system is their connection with each other through the instrumentality of said Telephone Company's toll system.

39. The access to said Telephone Company's toll facilities is a valuable part of the service rendered to its exchange subscribers as part of their exchange service; and there is no justification or reason for dealing with or considering the various exchanges of said Telephone Company together or by their combined results without also, at the same time, including said Telephone Company's toll system; and said Commission's Order, in treating all said Telephone Company's exchanges separately from its toll system, is in conflict with the practice of the Interstate Commerce Commission, which because of the participation of said Telephone Company's exchange system in interstate commerce, has taken jurisdiction of said Telephone Company's exchange system, as well as of its toll system.

40. Said Commission's Order on its face and aside from its other illegalities (whether or not apparent on its face) disregards said Telephone Company's surplus invested in its business, and allows said Telephone Company a return of less even than the legal rate of interest on its investment in the property used and useful in rendering the service, and less even than the legal rate of interest on the value of the assets represented by said Company's common stock attributed to its exchange business by the Commission itself, and without providing any payment to said Company for return on capital of its exchange business involved in furnishing toll service; and the effect of said

Commission's Order on its face and according to said Commission's computation, is to reduce the return of said Telephone Company from its entire telephone business, including exchange and toll, to less than 4-1/3% on the net assets represented by its common stock on the basis of 1931 business, and to reduce said Company's return on the basis of its business for the first five months of 1932 (which is the latest period for which figures are available) to a materially less amount, whether computed on the assets attrib- [fol. 25-17] utable to said Company's exchange business alone or on the basis of said Company's entire business.

41. Said Commission's Order on its face disregards the decline in exchange revenues during the year 1932 over the year 1931 and bases its determination of rates upon the revenues of 1931 on the assumption that similar amounts will be received in 1932, although the loss in total stations of said Telephone Company for the first five months of 1932 is known to said Commission and is stated in said Commission's Order at pages 63 and 130, and it is obvious that a loss of revenues must result therefrom in 1932; similarly, in basing its said determinations on the net operating revenues of 1931, said Commission has not ascertained the effect on said revenues of 1931 which will be noted in 1932 as a result of the increased amount of uncollectible revenues, which must result in 1932 from the economic conditions repeatedly mentioned in said Commission's Order; and said Commission in said Order has not ascertained nor allowed for the increased amount of expenses in connection with this investigation, including those paid directly by said Telephone Company and those paid or to be paid to said Commission.

42. Said Commission's Order, and also said Commission's proceedings in connection therewith, fail to comply with the Wisconsin Statutes and deprive the Telephone Company of property without due process of law and deny to said Telephone Company the equal protection of the laws in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States, in that, among other things:

Said Commission's Order was entered without any hearing or opportunity for hearing by said Telephone Company, excepting only cross-examination of said Commission's witnesses, and that subject to limitation by said Commission;

[fol. 25-18] Said Telephone Company had no opportunity to present any evidence or bring the real facts to the attention of said Commission, or to have cross examination in connection with Exhibits C-23, C-24 and C-25;

No notice was given to said Telephone Company of said Commission's consideration or proposed entry of a temporary order or of an order under Section 196.70 of the Wisconsin Statutes, and no opportunity was given to said Telephone Company to offer evidence or present its argument on the law and facts with reference thereto;

The so-called hearings had by said Commission in the above entitled matter consisted merely of the introduction of evidence formulated by said Commission itself (Transcript, pp. 1 to 2055, inclusive) and of some evidence from previous hearings incorporated by reference by said Commission (Transcript, pp. 253 and 254 —) to which no weight is given in said Commission's Order;

Said Commission acted as prosecutor in the hearings in the above entitled matter and not quasi-judicially, and particularly directed the preparation and presentation of evidence against said Telephone Company;

During the course of the proceedings in the above entitled matter, there were prepared by members of said Commission's staff with said Commission's knowledge and approval, many summaries of exhibits and statements of prospective testimony of witnesses, in form as if said testimony had already been given and said exhibits introduced, and said summaries were respectively marked for publication at an hour computed to be probably subsequent to the introduction of the evidence in question and were given to representatives of the press some hours before the same data were made known to said Telephone Company through the medium of the hearing; and as embodied in newspaper articles, appearing substantially simultaneously with, and even before, the actual introduction of the evidence in the hearing, such summaries unwarrantedly [fol. 25-19] made strong statements and drew derogatory

and unfair inferences against said Telephone Company; and although said Telephone Company moved (Transcript, pp. 494 and 1250) that such statements be filed in the above entitled proceeding and that said Telephone Company have opportunity to utilize the same for purposes of cross-examination of witnesses, such motions of said Telephone Company were either denied (Transcript p. 496) or taken under advisement (Transcript pp. 495 and 1251) and have not yet been decided, so that at the time said Commission's Order was issued and at the present time, said Telephone Company has not had access to said statements, and such action of said Commission was tantamount to a denial of said motions of said Company;

The requirement that the Telephone Company, within twenty days after the entry of an order, make an application for rehearing setting forth specifically the ground or grounds on which the applicant considers said order and determination to be unlawful and unreasonable as set forth in the Wisconsin Statutes (Section 196.405) as applicable to said Commission's Order, does not allow adequate time for preparation of all grounds of objection to said Commission's Order, and this inadequacy of time is aggravated by said Commission's rule of practice on the subject, adopted June 21, 1932, designated as 2-U-287, and by the fact that neither in the statutes nor in the Commission's rule is any provision made for subsequent amendment or amplification of the grounds set forth in such motion for rehearing.

43. The Commission acted as prosecutor in the above entitled proceeding and not quasi-judicially, and the Telephone Company had no opportunity for a due hearing therein, and the presumptions provided for by Sections 196.40 and 196.46 of the Wisconsin Statutes are therefore inapplicable to said Commission's Order; and if said sections of the statutes or either of them apply to said Commission's Order or are applicable with reference to the same, then said Sections 196.40 and 196.46 of the Wisconsin [fol. 25-20] Statutes deprive said Telephone Company of property without due process of law and deny to said Telephone Company the equal protection of the laws and are in violation of Article I of the Constitution of the State of

Wisconsin and particularly Section 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States, and are illegal, unconstitutional and void.

44. Said Commission's Order is based on and embodies numerous errors of fact and numerous erroneous conclusions thereon, including the following:

a) Said Commission's Order (especially at page 22) is in error and contrary to the facts and law in finding that employes benefits and relief department expenses of said Telephone Company are allocable in part to construction; whereas in fact said expenses are incurred for the maintaining of an operating force of high morale and permanency of tenure, so as to insure accuracy and uninterruptedness of said Telephone Company's operation; and such expenses are classified as an operating charge by the Interstate Commerce Commission which has sole jurisdiction thereof, and should be so classified and dealt with by said Public Service Commission of Wisconsin; and if said Commission's allocation of part of these expenses to construction were correct, it would result in addition to the plant and capital account of said Telephone Company of the amounts thereof in previous years, and such addition to the capital account has not been made in said Commission's Order.

b) Said Commission's Order (especially at page 39) is in error and contrary to the facts and law in finding that "maintenance expenses equalling those on a per station basis in 1928" are adequate for the duration of said order, and that "maintenance expenses in excess of $6.35 per average Company station", as defined in said Order, are excessive and unreasonable; whereas in fact the actual expenditures of said Telephone Company in its mainte- [fol. 25-21] nance account are necessary for the maintenance of proper service, and should be made and allowed in full.

c) Said Commission's Order (especially at pages 26 and 27) is in error and contrary to the facts and law in finding that "With such a falling off of business, the inadequacy of manually operated equipment tends to disappear as an important factor influencing a change from manual to dial operation. Moreover, the decline of the number of ex-

perienced operators, and of operators in training, employed by the Company itself (Exhibit C-55) indicates there is no serious scarcity of suitable operators for continued use of switchboards operated by hand. Under present circumstances, therefore, we see no reason why the Company's patrons should be asked to shoulder such enhanced maintenance expenses''; whereas in fact the reasons and circumstances which caused the said Telephone Company to exchange certain of its manually operated equipment for dial or automatic operated equipment are not in evidence. Said Commission's Order unwarrantedly assumes, in determining that maintenance expenses equal to the per station basis of 1928 are adequate, that, during the duration of said Order, the conversion of manually operated equipment to dial operated equipment will cease and be discontinued; whereas in fact such discontinuance would be unwise and uneconomical and would be wasteful in money and also result in unnecessary and unwarranted increase of unemployment.

d) Said Commission's Order (especially at page 44) is in error and contrary to the facts and law in finding that the payments by said Telephone Company to the American Telephone and Telegraph Company under the license and service contract are allocable in part to construction; whereas in fact said expenses are incurred currently for the benefit of said Telephone Company's operations and are classified by the Interstate Commerce Commission as a deduction from revenue, and should be so classified and dealt with by said Public Service Commission of Wisconsin.

[fol. 25-22] e) Said Commission's Order (especially at page 62) is in error and contrary to the facts and law in finding that ''an annual provision for depreciation of $1,888,520 was ample for the exchange system depreciable property [of the Telephone Company] for 1931, this sum being $273,957 less than the Company's provision for that year'', and that the depreciation rates shown in the table on page 61 of said Commission's Order ''are adequate rates'' to be applied during the period of said Order; whereas in fact the adequate and correct depreciation rates are those used currently by said Telephone Company and set forth in the table on page 49 of said Commission's Order; and said Commission's Order in that regard errs

particularly in finding (especially at page 54) that the depreciation rate for exchange manual central office equipment should be 5.7% per annum instead of said Company's rate of 7.5% ; and that the depreciation rate on station apparatus (page 57) should be 3.2% per annum, instead of said Company's rate of 5% ; and that the depreciation rate on private branch exchanges (page 58) should be 4.2% per annum, instead of said Company's rate of 5.7% ; and that the depreciation rate (page 59) on booths and special fittings should be 2.7% per annum, instead of said Company's rate of 4.1% ; and in that connection the fact is that further study has shown that a rate of depreciation on station apparatus higher than 5% is proper.

f) Said Commission's Order (especially at page 88) is in error and contrary to the facts and law in finding that "the methods used [by said Commission] in assigning exchange system property and expenses to local and toll uses have resulted in assigning to the local use at least as much of property and expenses as are actually associated with such use and that the methods used, as outlined above [in such order] are reasonable"; Whereas in fact the use of exchange property and the exchange expenses should not be allocated or assigned on the theory of coordinate use for local and toll service, and any allocation of exchange property or exchange expenses between local and toll use should carry with it an allocation of exchange revenue as between [fol. 25-23] the local and toll use for which the same is being paid; and further, the adoption of the Madison exchange computations of the Commission's engineers, as a basis for a state-wide allocation of exchange property and expenses between local and toll uses, is based on assumptions without sustaining facts.

g) In said Commission's Order (especially at pages 76 to 88, inclusive, constituting an apportionment of property and expenses between local and toll use), even assuming the correctness of the Commission's theory for the necessity of such apportionment, which said Telephone Company does not admit, there is error in adopting the studies of the Commission's engineers wherein computations are based upon facts of years prior to 1932 without recognizing the effect on said apportionment of the declining use of exchange facilities for toll purposes resulting from the declining de-

mand for toll service; and also in ignoring the fact that in said Commission's engineers' computation of the percentage of toll use to total use there is a constant decline in such percentage during the several years considered prior to 1932 and that the influence of this decline should have been projected into the computation for 1932; and also in accepting the erroneous conclusion of said engineers that in the determination of the relative use of exchange plant for toll and local use, calls made by subscribers to the local office of said Telephone Company for information and relative to service should be considered in part as toll uses.

h) Said Commission's Order (especially at page 93) is in error and contrary to the facts and law in finding that "local rates are now fixed [referring to the effect of said Order] at a point which should enable the Company to pay a dividend of 6% on that portion of its common stock which is applicable to the local service, the temporary order to be issued now [referring to the Commission's Order] will provide rates which are fully adequate"; whereas in fact earnings merely enough to cover a dividend of 6% on a portion [fol. 25-24] of the Telephone Company's capital stock are unreasonable and unjust and illegal and confiscatory and unconstitutional, and the rates provided in said Commission's Order and referred to in said finding are not adequate and are not reasonable or just and are confiscatory and in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States.

i) Said Commission's Order (especially at page 97) is in error and contrary to the facts and law in finding that a reduction of 12½% should be made in certain classes of exchange service revenue; whereas in fact such reduction is unreasonable and unjust and illegal and confiscatory and contrary to the statutes and law of Wisconsin and in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States.

j) Said Commission's Order (especially at page 126) is in error and contrary to the facts and law in finding and determining that "an emergency within the contemplation

of Section 196.70 exists and that this emergency injures the 'business and interests of the people' "; whereas in fact no such emergency exists, and there is no injury to the business or interests of the people in any way growing out of or connected with or threatened by the rates of said Telephone Company.

k) Said Commission's Order (especially at page 131) is in error and contrary to the facts and law in finding that "the exchange services rendered by the Wisconsin Telephone Company affected by this order [referring to said Commission's Order] are not reasonably worth the rates now being charged—rates fixed during a period of high prices and a different level of income, and based on constantly increasing costs—and that such rates are for this additional and supplemental reason unreasonable and unjust"; where as in fact such rates are less than compensatory or reasonable and just rates, taking into considera- [fol. 25-25] tion existing prices and the existing level of income and present costs, and the exchange service rendered by said Telephone Company is reasonably worth at least the amount of the rates now being charged therefor.

l) Said Commission's Order (especially at page 133) is in error and contrary to the facts and law in finding that temporary relief, pending the completion of the investigation, is justified by the facts thus far developed, and in stating that "clear and convincing proof is in our [the Commission's] hands requiring such reduction"; whereas in fact there is no proof, much less any clear and convincing proof, in this matter, requiring or justifying a reduction in rates, and there are no facts developed justifying what said Commission's Order designates as temporary relief; and in fact the present rates of said Telephone Company are less than reasonable and just rates and no reduction thereof, temporary or otherwise, is authorized or justified.

m) Said Commission's Order (especially at page 137) is in error and contrary to the facts and law in finding that "an emergency exists, and that a temporary order based upon facts concerning this utility disclosed in this record [referring to the present proceeding] and facts concerning the economic condition of the state require us [the Commission] temporarily to alter this Company's rates to pre-

vent injury to the business and interests of the people of the state"; whereas in fact no emergency exists, and no facts concerning the utility or the economic condition of the state require or justify any alteration of said Telephone Company's rates, whether temporary or otherwise; and further, no injury to the business or interests of the people of the state is threatened as a result of said Telephone Company's rates or will be prevented by the change in said Company's rates directed by said Commission's Order; and in fact, the present rates of said Telephone Company are less than reasonable and just rates.

n) Said Commission's Order (especially at page 139) is [fol. 25-26] in error and contrary to the facts and law in finding that the return to said Telephone Company provided by the rates directed by said Order is "reasonable and indeed liberal"; whereas in fact said rates are unreasonable and unjust and confiscatory and in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States.

o) Said Commission's Order (especially at page 152) is in error and contrary to the facts and law in finding that said Telephone Company "has no present need and will have no need during the period covered by this the Commission's order for substantial amounts of new capital"; whereas in fact said Telephone Company is in the midst of a construction program which cannot be interrupted without injury to the Company and the public, and which requires financing; and in addition, provision must be made for financing such additions or changes as may prove necessary.

p) Said Commission's Order (especially at page 152) is in error and contrary to the facts and law in stating that the return which the rates ordered by said Commission will permit "cannot and will not impair the credit of the utility and will permit its credit to be maintained"; whereas in fact said Order diminishing the return on said Telephone Company's common stock to less than the legal rate of interest necessarily will cause and already has caused an injury to the credit of said Telephone Company.

q) Said Commission's Order (especially at page 153) is in error and contrary to the facts and law in finding that the rate fixed by the Commission's Order "will produce a fair and reasonable return to the Wisconsin Telephone Company"; whereas in fact the rates directed by said Order are unreasonable and unjust and confiscatory and in violation of Article I of the Constitution of the State of [fol. 25-27] Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States.

r) Said Commission's Order (especially at page 155) is in error and contrary to the facts and law in finding that "the present rates of the Wisconsin Telephone Company for exchange service, except those which are not modified by this [the Commission's] order, are unjust and unreasonable"; whereas in fact all the existing rates of said Telephone Company, including the rates for exchange service modified or affected by said Order are less than reasonable and just rates.

s) Said Commission's Order (especially at page 155) is in error and contrary to the facts and law in finding that "the rates which are to be made effective under the terms of this order are just and reasonable rates to be applied for a temporary period in accordance with the terms of this order"; whereas in fact said rates are unjust and unreasonable and confiscatory and in violation of Article I of the Constitution of the State of Wisconsin and particularly Sections 1 and 22 of said Article, and in violation of the Fourteenth Amendment of the Constitution of the United States.

45. Said Commission's Order contains numerous inaccurate, untrue and incomplete statements which should be deleted therefrom in order that said Order shall not be misleading or become the foundation for injustice or further errors, including among others:

a) Said Commission's Order (especially at page 32) unwarrantedly intimates that preventive maintenance has not been demonstrated to show any improvement in service which has warranted the expense; whereas in fact such preventive maintenance has materially improved the telephone service, and in this, as in the other elements involved in said

Order, said Telephone Company has had no opportunity to prove the facts as they actually exist.

b) Said Commission's Order (especially at page 33) ac- [fol. 25-28] cepts the theory of one of said Commission's accountants as a fact without cross-examination or opportunity for said Telephone Company to be heard thereon, and improperly criticizes the drop wire account of said Telephone Company, and said Order disregards the fact that under the Interstate Commerce Commission's classification of accounts, extraordinary repairs should be charged to depreciation reserve as to all classes of property.

c) Said Commission's Order (especially at pages 50 and 151) unwarrantedly makes reference to the figure of $13,-923,619 and the figure of $13,891,227, as the reserve for depreciation on the exchange property of the Telephone Company; whereas said figure is purely hypothetical, based on Exhibits C-23, C-24 and C-25 prepared by Asel R. Colbert, one of said Commission's accountants, on which cross-examination has not yet been had and which is not yet definitively in evidence; and in fact the Company's depreciation reserve, with the approval heretofore of said Commission, is kept as a whole, making provision for depreciation contingencies by ru[illegible] of average applicable to all property, and said Commission's allocation, made in said Order, is unwarranted by the basis of said Company's depreciation reserve or by any proper theory of accounting.

d) Said Commission's Order (especially at page 53) improperly states that "With no growth in service requirements, inadequacy in central office telephone equipment would be eliminated as a factor to be considered in depreciation expense; whereas such lack of growth or slackening of growth as may occur during the period of said Order will in all probability be compensated for by increased growth after said period, so that the ultimate date of the retirement will not be affected, and the function of a depreciation reserve to provide for inadequacy requires provision to be made continuously therefor.

e) Said Commission's Order (especially at page 80) erroneously states that the Company has an excessive [fol. 25-29] reserve for depreciation as to certain classes of property, which statement is based on the said Exhibits

C-23, C-24 and C-25 hereinbefore referred to, and is based on an improper allocation of items and in disregard of the real principle and nature of such reserve hereinbefore referred to.

f) Said Commission's Order (especially at pages 69, 70 and 151) erroneously states that said Telephone Company has a large amount of excess unused property; whereas in fact said Company's construction has been with proper regard for its needs and it has no property entered on its books as telephone plant which is not used and useful for its telephone business.

g) Said Commission's Order (especially at pages 70 and 71) sets forth a so-called adjusted income statement of said Telephone Company, which embodies the adjustments made unwarrantedly by the Commission and is therefore erroneous and misleading.

h) Said Commission's Order (especially at page 109 and following) accepts the so-called general economic testimony and economic interpretation of witnesses called by said Commission as economists; whereas, aside from its immateriality, such testimony represents only a theory of the particular witnesses and fails to take account of additional facts which said Telephone Company had no opportunity to present, and also of the researches and conclusions of other economists holding different views.

i) Said Commission's Order (especially at page 119) makes reference to the increase of telephone rates, judging the same only by an average of annual rates per station, and disregarding the fact that said Telephone Company's telephone service has been very materially improved in the number of subscribers reached in each exchange, as well as in the quality of service, and also disregarding the fact [fol. 25-30] that the telephone rates of said Company, as compared with those for the year 1913, have increased less than the increase in weekly wage earnings and such telephone rates now have only approximately the same amount of increase over the 1913 base as the cost of living.

j) Said Commission's Order (especially at page 132) assumes that the money paid to said Telephone Company in rates has increased purchasing power under present circumstances; whereas in fact, ou[illegible]e operating expense

of said Telephone Company, only 10% are expended for materials, and over 85% are expended for wages, salaries, rents, depreciation and taxes, in which there has been no decrease in rate or amount, but on the contrary, so far as taxes are concerned, there has been an actual increase; and thus any increase of purchasing power affects only the 10% of the Telephone Company's operating expenses which is applicable to materials, and this is substantially offset by increase in taxes.

k) Said Commission's Order (especially at page 146) refers to the telephone business as one of minimum risk; whereas in fact the telephone business is one of very substantial hazards and has involved a large number of failures, and success in the telephone business, as in other business enterprises, requires efficient management.

l) Said Commission's Order (especially at page 148) states that the capital turnover ratio of said Telephone Company's business is 3 to 1; whereas in fact the ratio in 1931 was 4 to 1, a figure materially less advantageous to said Company.

46. The system of having telephone toll rates cover toll service only from toll board to toll board, and having the exchange rates include compensation for toll service from the toll board to the subscriber's instrument, besides having the approval of said Commission, as hereinbefore set [fol. 25-31] forth has been the practice universally in use throughout the United States during the entire history of the telephone business, and any attempt to make a change therein in a single state will disturb the entire telephone service throughout the United States and interfere with and burden interstate commerce, and will be in violation of the Constitution of the United States, and particularly Section 8 of Article I thereof.

47. Irrespective of the other respects in which said Commission's Order is unconstitutional, illegal and void, said Commission's Order is unconstitutional and void for the reason that it constitutes an attempted exercise by the said Commission of legislative power which is vested in the Senate and Assembly by Section 1 of Article IV of the Wisconsin Constitution; and if said Section 196.70 of the Statutes, on which said Order purports to be based, au-

thorizes or empowers the said Commission to issue said order, said section of the Statutes is unconstitutional and void, among other reasons, because it constitutes a delegation of the legislative power to an executive agency in violation of Section 1 of Article IV of the Wisconsin Constitution.

In each and every of the respects above set forth the said Telephone Company deems and maintains said Commission's Order is unlawful, unreasonable, improper and unfair.

In view of the wide scope and length of said Commission's Order, the limit of time on a motion for rehearing provided by Section 196.405 of the Wisconsin Statutes is inadequate to permit proper study of the facts, analysis of the principles involved and formulation of all grounds of unlawfulness and unreasonableness of such Order, and is insufficient for compilation of further details than those hereinbefore set forth, assuming (which is denied) that any further details can be legally required; and said Telephone Company reserves and claims the right to assert and present in any proceeding any and all additional [fol. 25-32] grounds on which said Telephone Company considers and claims and maintains said Commission's Order to be unlawful or unreasonable.

Dated July 19th, 1932.

Wisconsin Telephone Company, by Wm. R. McGovern, President. Miller, Mack & Fairchild, J. F. Krizek, Counsel.

[fol. 26] [File endorsement omitted]

DISTRICT COURT OF THE UNITED STATES OF AMERICA, WESTERN DISTRICT OF WISCONSIN

No. 2118. Equity

CHANCERY SUBPŒNA AND RETURN—Filed July 29, 1932

The President of the United States of America to Public Service Commission of Wisconsin; Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin; A. R. McDonald, individually and as a Commissioner of the Public Service Commission of Wisconsin; David E. Lilienthal, individually and as a Commissioner of said Public Service Commision of Wisconsin; William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, Greeting:

We command you and every of you that you be and appear before our Judges of our District Court of the United States of America for the Western District of Wisconsin, at Madison, Wisconsin, in said District, on or before the twentieth day after service of this writ, exclusive of the day of service, to answer or otherwise defend against a certain bill in equity this day filed by Wisconsin Telephone Company, a Wisconsin Corporation, in the Clerk's office of said Court, in said city of Madison, Wisconsin, then and there to receive and abide by such judgment and decree as shall then or thereafter be made, upon pain of judgment being pronounced against you by default.

To the Marshal of the Western District of Wisconsin to execute.

Witness the Honorable F. A. Geiger, Judge of the District Court of the United States of America for the Western District of Wisconsin, at Madison, Wisconsin, aforesaid, this 28th day of July, A. D. 1932.

H. C. Hale, Clerk, by —— ——, Deputy. (L. S.)

Miller, Mack and Fairchild, First Wisconsin National Bank Bldg., Milwaukee, Wisconsin, Attorneys for Complainant.

Memorandum

The defendants in this case are required to file their answers or other defense in the Clerk's office at Madison, Wisconsin, on or before the twentieth day after service hereof upon them, excluding the day of the service; otherwise the said bill may be taken pro confesso.

H. C. Hale, Clerk, by —— ——, Deputy.

[fol. 27] Department of Justice

United States Marshal, Western District of Wisconsin

UNITED STATES OF AMERICA,
Western District Wisconsin, ss:

I hereby certify and return that I served the attached Chancery Subpœna on the Public Service Commission of Wisconsin and upon Theodore Kronshage, Jr. as Chairman and as a Commissioner of the Wisconsin Public Service Commission of Wisconsin and individually; upon A. R. McDonald, individually and as a Commissioner of the Public Service Commission of Wisconsin; upon William N. Dineen, individually and as Secretary of the Public Service Commission of Wisconsin; upon John W. Reynolds, individually and as Attorney General for the State of Wisconsin, by exhibiting to each of them, personally the signature of H. C. Hale, U. S. Clerk and the seal of the court on the original writ and by handing to — leaving with each of the defendant- named a true and correct copy thereof. At Madison, this 28th day of July, 1932. I further certify that after due and diligent search and inquiry I am unable to find the within named David E. Lilienthal within my district, this 28th day of July, 1932.

C. H. Rawlinson, United States Marshal, by Will Touton, Chief Deputy.

[fol. 28] IN UNITED STATES DISTRICT COURT

[Title omitted]

APPLICATION FOR INTERLOCUTORY INJUNCTION AND TEMPORARY RESTRAINING ORDER—Filed July 28, 1932

To the Honorable the Judges of the District Court of the United States for the Western District of Wisconsin:

Upon the verified bill of complaint herein and the affidavits of George F. Crowell, Edward A. Fritz and Frank

M. McEniry, the complainant makes application for an interlocutory injunction and, pending the issuance thereof, for a temporary restraining order, enjoining and restraining the defendants and each of them and their clerks, servants and attorneys and all persons acting under them or by their discretion or authority and all other persons, pending final decree in this suit from any attempt to compel the complainant, its officers, agents or employees to observe or put in force the rates for telephone service prescribed by the Order of the defendant, Public Service Commission of Wisconsin, in its order designated "Opinion and Order Decided June 30, 1932" and further designated "In the Matter of the State-Wide Investigation on the Commission's [fols. 29 & 29½] Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company," which proceeding bears the number "2-U-35," and from taking any steps or proceedings against the complainant, its officers, agents or employees, to enforce any penalty or other remedy for disregarding the rates prescribed by said order or for failure in any other respect to comply with said order; and that you grant to the complainant such other and further relief as to you may seem just and proper in the premises.

Dated July 27, 1932.

(Signed) Edwin S. Mack, (Signed) Frederic Sammond, Solicitors for the Complainant, 735 North Water Street, Milwaukee, Wisconsin. (Signed) Miller, Mack & Fairchild, of Counsel.

[fol. 30] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER TO SHOW CAUSE RELATIVE TO RESTRAINING ORDER ETC.—Filed July 29, 1932

The complainant having this day presented its verified bill of complaint in this suit wherein an interlocutory injunction and, pending the issuance thereof, a temporary restraining order accordingly, is prayed and also the affidavits of George F. Crowell, Edward A. Fritz and Frank M. McEniry, and having made application to this court

for an interlocutory injunction herein and, pending the issuance thereof, for a temporary restraining order accordingly, and the complainant appearing by Edwin S. Mack and Frederic Sammond, its solicitors, and Miller, Mack & Fairchild, of Counsel;

And it appearing that said application for said interlocutory injunction and temporary restraining order is to enjoin and restrain the defendants and each of them and their clerks, servants and attorneys and all persons acting [fol. 31] under them or by their direction or authority and all other persons from any attempt to compel the complainant, its officers, agents or employees to observe or put in force the rates for telephone service prescribed by the order of the defendant, Public Service Commission of Wisconsin, in its order designated "Opinion and Order Decided June 30, 1932" and further designated "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company," which proceeding bears the number "2-U-35," and from taking any steps or proceedings against the complainant, its officers, agents or employees, to enforce any penalty or other remedy for disregarding the rates prescribed by said order or for failure in any other respect to comply with said order:

And it also appearing from said bill of complaint that the application for an interlocutory injunction should be heard in the manner provided by Section 266 of the Judicial Code of the United States.

It is hereby ordered that the defendants show cause, if any they have, before this court in the court room of the District Court of the United States for the Western District of Wisconsin, located in the Post Office Building in the City of Madison and State of Wisconsin on the 30th day of July, 1932, at ten o'clock A. M., or as soon thereafter as the matter can be heard, why the temporary restraining order applied for by the complainant should not be issued, pending the hearing and determination of said application for an interlocutory injunction.

And that at said place and time the parties also be heard as to the date to be set for the hearing of said application for an interlocutory injunction.

Let a copy of this order be served upon each of the de-
[fols. 32 & 32½] fendants at least one day prior to the day fixed for said hearing.

Dated July 27, 1932.

(Signed) F. A. Geiger, Judge.

[fol. 33] Department of Justice

United States Marshal, Western District of Wisconsin

UNITED STATES OF AMERICA,
Western District of Wisconsin, ss:

I hereby certify and return that I have served the Order to Show Cause relative to restraining order etc. on the Public Service Commission of Wisconsin and upon Theodore Kronshage Jr. individually, as chairman and as Commissioner of said Public Service Commission of Wisconsin by exhibiting to the said Theodore Kronshage Jr. the signature of Honorable F. A. Geiger, Judge on the original writ and by leaving with him a true and correct copy thereof and at the same time I handed to Theodore Kronshage Jr. a copy of the complaint and affidavit. I further certify that I served upon A. R. McDonald, individually and as a Commissioner of the Public Service Commission of Wisconsin, by exhibiting to him the signature of Honorable F. A. Geiger, Judge, on the original writ and by leaving with the said A. R. McDonald a true and correct copy thereof. I further certify that I served upon William N. Dineen, individually and as Secretary of the Public Service Commission of Wisconsin by exhibiting to William N. Dineen the signature of Honorable F. A. Geiger, Judge, on the original writ and by leaving with him a true and correct copy thereof. I further certify that I served upon John W. Reynolds, individually and as Attorney General for the State of Wisconsin, by exhibiting to him the signature of Honorable F. A. Geiger, Judge, on the original writ and by leaving with the said John W. Reynolds a true and correct copy thereof and at the same time I handed to him a copy of the bill of complaint and affidavit. Service of all defendants in the City of Madison on the 28th. day of July, 1932. I further certify that after due and diligent search and inquiry I am unable to find the within named

David E. Lilienthal, defendant, within my district, this 28th. day of July, 1932.

C. H. Rawlinson,
United States Marshal, by Will Touton, Chief Deputy.

[fol. 34] In United States District Court

[Title omitted]

Affidavit of George F. Crowell—Filed July 28, 1932

State of Wisconsin,
County of Milwaukee, ss:

George F. Crowell, being duly sworn, deposes and says:

I reside at 2837 West Dunbar Place, Milwaukee, Wisconsin. I am Chief Engineer of Wisconsin Telephone Company and am in charge of the Engineering Department of said Company. I have been engaged in the telephone business since the year 1904, having started as night operator and subsequently as repairman and collector with Yarmouth Amalgamated Telephone Company, of Yarmouth, Nova Scotia. In May 1906, I entered the employment of the complainant as an installer's helper and for six years was employed in the Plant Department. In 1912, I was transferred to the Engineering Department of the complainant and for five years was engaged in equipment engineering work. In 1917, I became Transmission and Protection Engineer. In May 1920, I assumed the additional duties of Fundamental Plan Engineer and was responsible for general studies relating to fundamental [fol. 35] design of the telephone system, particularly with reference to the economical number and location of future central offices, the ultimate routing of lines and efficient extension for the future. In January 1928, I became Chief Engineer and since then have been and am now charged with the preparation of plans and estimates of cost and with the supervision and review of costs for buildings, equipment, construction, rearrangement and removal of plant and equipment, the preparation of fundamental plans, studies of depreciation and construction and maintenance standards, as well as the preparation of inventories and

appraisals; and I have been and am familiar with the costs and values of telephone property and the labor and material involved in the construction of telephone plants, including buildings and equipment.

I am thoroughly familiar with telephone properties and with the work, labor and materials entering into construction of the same and with the units of cost thereof and, in the regular course of my employment, I have repeatedly made appraisals and studies of telephone properties.

I have read the bill of complaint in this suit and am familiar with the averments therein set forth.

I am familiar with the entire property belonging to Wisconsin Telephone Company and with its plant measurement and other property records and the situation and condition of said property. In the course of my said employment, I have made a valuation as of January 1, 1932, based upon the complainant's record of quantities and character of plant and equipment, of all of the property used and useful in and devoted exclusively by the complainant to the rendition of its entire telephone service in the State of Wisconsin and of its exchange service respectively. The said valuation is corroborated by my personal knowledge of said property. I have further allocated the said property as [fol. 36] thus valued into that used and useful by the complainant to the rendition of its intrastate exchange service and its entire intrastate telephone service as respectively defined in the complaint herein. In making the said allocations to intrastate service of said property as thus valued, I have used as my basis the comparable allocations to intrastate of the Company's investment in property, as determined from its books of account and then allocated by Edward A. Fritz, the General Auditor of the complainant, as set forth in his affidavit in this suit, verified this day. The valuation and the allocation hereinbefore referred to was made with the assistance and co-operation of engineers and accountants of complainant under my direction and supervision and was personally checked by me.

In arriving at the fair and reasonable value of said property, as hereinafter stated, I have taken into consideration, among other things, the original cost of said property, as per the books of account of the complainant, its reproduction value new based on price levels on Jan. 1, 1932, determined by means of index numbers and the repro-

duction value new less existing depreciation, which would be revealed by physical inspection. Said index numbers so used were checked by me with other sources and judged by my own experience and are true and correct in my judgment and according to my experience. In these valuations, I have included the factor of interest during construction at the rate of 6%, materials and supplies actually on hand as per the books of account of the complainant, working capital at 1% of the book value of complainant's plant and equipment (which is approximately the same as the cash requirements for one month operating expenses) and going value at 10% of the reproduction value of the total plant and equipment.

Upon determination of the fair and reasonable value of the complainant's property, as of January 1, 1932, and of [fol. 37] the allocation thereof to the several classes hereinbefore referred to, I have determined the fair and reasonable average value of the said property in each class owned by the complainant during the year 1931 and during the first five months of the year 1932, based upon the amount of increased investment of the complainant in said property, during the year 1931 and the year 1932, in relation to its investment as shown by its books on January 1, 1932.

As a result of the foregoing computations and studies, I have determined that the fair and reasonable value of complainant's property on January 1, 1932, and the average fair and reasonable value of said property during said periods, respectively, was as follows:

	Jan. 1, 1932	Avge. 1931	Avge. first 5 mos. 1932
Exchange plants and equipment.....	$57,575,967	$55,895,026	$57,903,995
Entire telephone plant and equipment..	78,532,684	76,066,979	78,925,235
Exchange plants and equipment allocable to intrastate exchange service..	56,400,000	54,850,000	56,875,000
Entire telephone plant and equipment allocable to intrastate service.....	73,500,000	71,230,000	74,155,000

Based upon my knowledge of the properties, the data available in my office and my knowledge of prices, I am of the opinion that the foregoing valuations are fair and reasonable valuations at the date or for the period stated of the property of the complainant used and useful for furnishing the service hereinbefore described; and that the fair and reasonable value of said property and of each class thereof is now not less than the average value of said prop-

erty during the first five months of 1932 as hereinbefore stated.

I have found and am of the opinion that all of said property owned by Wisconsin Telephone Company is used and useful in the rendition of its telephone service in Wisconsin.

For several years past and at the present time the complainant has been engaged, under the supervision of the [fol. 38] undersigned in converting certain of its exchange plants from the type of equipment in its central offices operated manually to a type of equipment operated automatically, commonly known as the "dial system"; the gradual conversion of these exchanges to the new type of equipment is wise and necessary in the best interests of all concerned and the conversion of certain of complainant's exchange plants is now in progress and cannot be discontinued or postponed for any appreciable length of time without great waste of money and decrease of employment.

The amount expended by the complainant in all years and particularly in the years 1929, 1930 and 1931 for maintenance and upkeep of complainant's plant and equipment was reasonably necessary for the efficient and economical management of its business and its property.

Since the year 1926, complainant has pursued preventive maintenance practices with respect to periodic inspection and routine maintenance, testing and repairs of its plant and equipment and I have been concerned with the initiation of said practices and the review of the results thereof. The results of the preventive maintenance activities of the complainant have demonstrated that the practice definitely improves the service furnished by the complainant to its subscribers and that it contributes to the economical maintenance and the length of useful life of the property.

Repeated studies have been made under my supervision to determine the useful life and the probable salvage value of the different classes of property of the complainant in order to determine the proper rates to be applied to complainant's property in establishing its depreciation reserve. I am familiar with complainant's depreciation rates and methods and have found and am of the opinion that the depreciation heretofore reserved and the amount deducted [fol. 39] from operating revenues in recent years, particularly in the year 1931, on account of depreciation is

and was necessary to provide an adequate depreciation reserve.

(Signed) George F. Crowell.

Subscribed and sworn to before me this 27th day of July, 1932. My commission expires June 24, 1934. (Signed) M. R. Crocker, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 40] In United States District Court

[Title omitted]

Affidavit of Edward A. Fritz—Filed July 28, 1932

State of Wisconsin,
Milwaukee County, ss:

Edward A. Fritz, being duly sworn, deposes and says:

I reside at 3820 North Downer Avenue, Milwaukee, Wisconsin. I am General Auditor of Wisconsin Telephone Company. I have been employed in the telephone business since 1898 in accounting work. I began my service as messenger in the accounting department of Michigan Telephone Company in Detroit and advanced through various positions until I became general bookkeeper of that Company in 1910. In 1911, I was appointed Supervisor of Methods and had supervision of all revenue accounting methods of the central group of telephone companies, consisting of Michigan Bell Telephone Company, Cleveland Telephone Company, Chicago Telephone Company, Central Union Telephone Company and Wisconsin Telephone Company, the complainant. In 1919, I became District Accountant of Chicago Telephone Company in charge of revenue accounting. On May 1, 1920, I became Chief Accountant of Michigan Bell Telephone Company, having general super-
[fol. 41] vision of accounting methods, practices and statistical and rate work under the direction of the General Auditor. On December 1, 1929, I became Assistant General Auditor of Wisconsin Telephone Company, the complainant, and on January 1, 1930, I became its General

Auditor, having supervision and direction of all of the books of account and all accounting work.

I am thoroughly familiar with the books of account of said Company and the same are kept under my supervision and direction and particularly those relating to the costs of complainants' property and to the revenues and expenses of the complainant.

I have read the bill of complaint in this suit and am familiar with the averments therein set forth.

The accounts of the complainant are and have been since January 1, 1913, kept in accordance with the accounting system and regulations prescribed by the Interstate Commerce Commission and approved from time to time by the Public Service Commission of Wisconsin, under its former name of Railroad Commission of Wisconsin; as so kept, said accounts do not separate the portion of complainant's investment used in its toll service between intrastate and interstate nor do they separate the revenues and expenses relating to intrastate and interstate service.

From the books of account of the complainant, I have determined the average investment of the complainant during the year 1931 and during the first five months of the year 1932 in its property used and useful for furnishing the exchange service covered by its exchange rates, and that used and useful for furnishing its entire telephone service; from the said date and by detailed studies and computation I have determined the complainant's average investment during the same two periods used and useful for furnishing intrastate exchange service and that used and useful for furnishing its intrastate telephone business.

[fol. 42] I have allocated the complainant's materials and supplies during said two periods, per its books of account, and also its working capital taken at 1% of its book value or investment in its plant and equipment and have added as going value the proper allocable portion of 10% of the reproduction value new of complainant's plant and equipment as determined by George F. Crowell, complainant's Chief Engineer, and used by him in an affidavit verified this day.

From the foregoing studies and computations, I have determined the complainant's average investment as follows:

	Average 1931	Average first 5 months 1932
Complainant's investment in its exchange plants and equipment alone (not including working capital, stores and supplies and going value)	$53,515,430	$53,644,747
Complainant's investment in its exchange plants and equipment plus stores and supplies, working capital, and going value allocable thereto	59,863,570	62,030,443
Complainant's investment in telephone plants and equipment alone (not including working capital, stores and supplies and going value)	72,513,126	75,529,369
Complainant's investment in telephone plants and equipment plus stores and supplies, working capital and going value	81,135,066	84,204,134
Complainant's investment in that portion of its exchange plants and equipment allocable to intrastate exchange service (not including working capital, stores and supplies and going value)	52,520,000	54,655,000

[fol. 43]

	Average 1931	Average first 5 months 1932
Complainant's investment in that portion of its exchange plants and equipment allocable to said intrastate exchange service, plus stores and supplies, working capital and going value allocable thereto	58,750,000	60,930,000
Complainant's investment in its plant and equipment allocable to intrastate telephone business (not including working capital, stores and supplies and going value)	67,905,000	70,965,000
Complainant's investment in its plant and equipment allocable to intrastate telephone business, plus stores and supplies, working capital and going value allocable thereto	75,980,000	79,115,000

I have also determined from the books of account of complainant the net operating income of the complainant for the year 1931 and for the first five months of the year 1932 for each of the classes of service hereinbefore stated, making due allocation thereof to the intrastate exchange and entire intrastate telephone business to be as follows:

	1931	First five months 1932
Exchange service	$2,331,571	$962,107
Entire telephone business	2,891,481	1,036,526
Intrastate exchange service	2,310,000	946,000
Entire intrastate telephone business	2,710,000	970,000

I have determined what complainant's net operating income would have been from each of the said classes of telephone service had the rates provided by the order of the Public Service Commission of Wisconsin, decided June 30, 1932, been in effect during the year 1931 and during [fol. 44] the first five months of 1932, as follows:

	1931	First five months 1932
Exchange service	$1,053,955	$463,856
Entire telephone business	1,663,583	555,394
Intrastate exchange service	1,035,000	450,000
Entire intrastate telephone business	1,482,000	490,000

I have determined from the books of account of the Company that of the total amount expended by it during the first five months of the year 1932 only about 10% was expended for materials and over 85% was expended for wages, salaries, rent, depreciation and taxes.

During the years 1931 and 1932, the operating revenues of the complainant have declined as a whole and are continuing to decline at the present time.

I have studied the expenses of the complainant for the year 1931 in order to determine what the expenses will probably be during the year 1932 and, among other things, have determined that in my judgment the amount of loss resulting from uncollectible revenues will be approximately $100,000 more in 1932 than it was in 1931 and that expenses paid or claimed to be due or to be incurred to the Public Service Commission of Wisconsin in connection with the investigation by that Commission in 1931 and 1932, without regard to any expenses of litigation of the above entitled suit will exceed $100,000 in 1932, although there were no such expenses included on the books of the complainant for the year 1931.

The annual expenditures of the complainant on account of its pension and relief funds are regularly charged to an account under Miscellaneous General Expenses entitled "672 Relief Department and Pensions" and the amount expended by the complainant under its so-called "license contract" with American Telephone & Telegraph Com- [fol. 45] pany are charged to an account entitled "527 License Revenue Debit." Said accounts are prescribed by the Interstate Commerce Commission specifically for these types of expenditures respectively and are provided as expense accounts and there is no provision under the accounting methods and system prescribed by the Interstate Commerce Commission for charging any part of either of these expenses to Construction or capital accounts. In the Interstate Commerce Commission system of accounts, which is to be made effective on January 1, 1933, a new account is entitled "674 General Services and Licenses" in the

group of accounts entitled "Other Operating Expenses" for payment made under said "license contract."

(Signed) Edward A. Fritz.

Subscribed and sworn to before me this 27th day of July, 1932. (Signed) M. R. Crocker, Notary Public, Milwaukee County, Wisconsin. My commission expires June 24, 1934. (Seal.)

[fol. 46] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF FRANK M. MCENIRY—Filed July 28, 1932

STATE OF WISCONSIN,
Milwaukee County, ss:

Frank M. McEniry, being duly sworn, deposes and says:

I reside at 2424 E. Beverly Road, Shorewood, Wisconsin. I am General Commercial Superintendent for Wisconsin Telephone Company and have been engaged in the telephone business for over thirty-two years. My original employment in the telephone business was with Central Union Telephone Company at Rockford, Illinois, where starting in 1900 I served for approximately six years as groundman, lineman, installer, repairman and switchboardman and Local Manager of Warren, Illinois, Galena, Illinois and Moline, Illinois. For approximately five years thereafter, I was District Manager of Wisconsin Telephone Company in charge of plant, traffic and commercial departments successively at Racine and Green Bay, Wisconsin. Thereafter in 1911, I became and since have been Commercial Superintendent of the complainant. In 1921 the title of the office was changed to that of General Commercial Superintendent. My work since 1911 for the system as a whole has [fol. 47] included supervision of all commercial matters, including establishment and application of rates, sales, collections, directories, relations with connecting companies, market surveys and public relations.

I have read the bill of complaint in this suit and am familiar with the averments therein set forth.

For more than twenty years of my experience in the telephone business, I have been particularly familiar with the

methods of designing and establishing rates to subscribers. During all that time, all rates for toll service have been established, many of them with the express approval of the Public Service Commission of Wisconsin, under its former name of Railroad Commission of Wisconsin, on the theory of providing the Telephone Company with compensation for furnishing service from toll switchboard to toll switchboard and similarly rates for exchange, frequently with the express approval of said Commission, have been established to compensate the Telephone Company for furnishing local service and also, as a part thereof, the terminal or toll switchboard-to-subscriber-station service on toll calls. I have never known of a rate being established, for the complainant or otherwise, on any other theory or system. The rates and methods prescribed and outlined in the order of the said Commission, which is the subject of this suit, will in my opinion require the Telephone Company to furnish the said terminal toll service without compensation in any way.

The system of the plant comprises ninety-six local exchanges, which are only interconnected physically or in operating relation through the toll system of the complainant; and the method proposed in said Commission's Order of determining rates for all exchanges together as one system, and without distinction between exchanges, while [fol. 48] giving no consideration to the toll rates, disregards the nature of the telephone business, and is an illogical and improper method of determining rates.

I am familiar with the quality of service furnished by the complainant for over 20 years and of the rates charged therefor and am of the opinion that the present and existing rates for exchange service and also for toll service of the complainant are less than the value of the services rendered therefor and that the said services are reasonably worth the rates now being charged therefor.

Based on my experience and my personal contact with telephone users for over twenty years, I am of the opinion that the reduction of rates of the complainant directed by said Commission's Order would not enable any persons to procure telephone service who would not be able to afford and procure such service at the present rates therefor.

Complainant now has and for some years has had outstanding in the hands of investors an issue of its preferred

capital stock of the par value of $4,947,000, bearing a fixed and determined dividend of 7% per annum cumulatively; said preferred stock is entitled to preference both in distribution of capital assets and in dividends over the complainant's common stock which has a par value of $40,000,000; and the complainant has a surplus of $8,049,773. The said preferred stock is traded in through brokers in the City of Milwaukee and elsewhere and on the Milwaukee Stock Exchange. Since April 1, 1932, when the public hearings in connection with the so-called "State-Wide Investigation" of the Wisconsin Telephone Company were commenced, the bid price for said preferred stock has declined from $110 per share on April 1, 1932, to $97 per share on July 23, 1932, and I am of the opinion that the said decline in market price for said stock has been substantially influenced by the said investigation, and the concomitant [fol. 49] adverse newspaper publicity emanating from the office of the said Commission, and particularly from the order of said Commission, whose injunction is the object of this suit.

(Signed) Frank M. McEniry.

Subscribed and sworn to before me this 27th day of July, 1932. My commission expires June 24, 1934. (Signed) M. R. Crocker, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 50] In United States District Court

[Title omitted]

Temporary Restraining Order—Filed July 30, 1932

The application of the complainant for a temporary restraining order in this suit pending the hearing and determination of the application of the complainant for an interlocutory injunction herein, having come on to be heard on the 30th day of July, 1932, pursuant to the order to show cause herein, dated July 27, 1932, on the verified complaint and the affidavits of George F. Crowell, Edward A. Fritz and Frank M. McEniry herein, and the complainant

appearing by Edwin S. Mack and Frederic Sammond, its solicitors, and Miller, Mack & Fairchild, of counsel and all the defendants appearing by John W. Reynolds, Attorney General, of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin and Alvin C. Reis, their solicitors.

And it appearing from said bill of complaint that said application for an interlocutory injunction herein should be heard in the manner provided by Section 266 of the Judicial Code of the United States;

And it further appearing that due and sufficient notice [fol. 51] of said application and motion has been given and that irreparable loss and damage would result to the complainant unless a temporary restraining order herein is granted, and the court being sufficiently advised in the premises;

And it further appearing that the complainant has given its bond or undertaking in the sum of One Hundred Thousand Dollars ($100,000), conditioned upon the payment of such costs and damages as may be incurred or suffered by any party who may be found to be wrongfully enjoined and restrained hereby and further conditioned so that in the event that an injunction, as prayed for in said bill of complaint, shall not be awarded to the complainant, the complainant shall refund to its several subscribers, either in cash or by credit upon subsequent bills, any sums paid by them in the meantime in excess of the sums chargeable to them on and after August 5, 1932, pursuant to the provisions of said order, the enforcement of which is hereby temporarily restrained;

Now, therefore, it is ordered and decreed that, until the hearing and determination of the application of the complainant for an interlocutory injunction in the above entitled suit, the defendants, Public Service Commission of Wisconsin, Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin, A. R. McDonald, individually and as a Commissioner of said Public Service Commission of Wisconsin, David E. Lilienthal, individually and as a Commissioner of said Public Service Commission of Wisconsin, William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, and

[fol. 52] their clerks, servants and attorneys and all persons acting under them or by their direction or authority and all other persons be and hereby they are severally enjoined and restrained from attempting to compel the complainant, its officers, agents or employees, to observe or put in force the rates for telephone service prescribed by the Order of said Commission designated "Opinion and Order Decided June 30, 1932" and further designated "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company", which proceeding bears the number "2-U-35", or to comply with the said Order; and that the said Public Service Commission of Wisconsin, Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin, A. R. McDonald, individually and as a Commissioner of said Public Service Commission of Wisconsin, David E. Lilienthal, individually and as a Commissioner of said Public Service Commission of Wisconsin, William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, their clerks, servants and attorneys and all persons acting under them or by their direction or authority, and all other persons be and they are hereby severally enjoined and restrained from taking any steps or proceedings against the complainant, its officers, agents or employees, to enforce any penalties or other remedies for disregarding the rates prescribed by said Order or by failure in any other respect to comply with said Order.

Dated this 30th day of July, 1932.

F. A. Geiger, Judge.

[fol. 53] [Endorsed:] Service admitted this 30th day of July, 1932. John W. Reynolds, Attorney General. Samuel Bryan, Assistant Attorney General. Alvin C. Reis, Solicitor for Defendants.

[fols. 54-55½] Bond on restraining order for $100,000, approved and filed July 30, 1932, omitted in printing.

[fol. 56] IN UNITED STATES DISTRICT COURT

[Title omitted]

NOTICE OF HEARING OF APPLICATION FOR INTERLOCUTORY INJUNCTION—Filed Aug. 11, 1932

To the Honorable Philip F. LaFollette, Governor of the State of Wisconsin, and to the Honorable John W. Reynolds, Attorney General of the State of Wisconsin, and to each and every of the above-named defendants:

You and each of you are hereby given notice, pursuant to the provisions of Section 266 of the Judicial Code of the United States, that the District Court of the United States for the Western District of Wisconsin has set for hearing and determination, in the Federal Court Room, in the Post Office Building, in the City of Madison, State of Wisconsin, on the 20th day of August, 1932, at ten o'clock in the forenoon of said day, the application of the complainant for an interlocutory injunction in the above entitled suit, pending final decree therein, to enjoin and restrain the defendants and each of them and their and each of their clerks, servants and attorneys and all persons acting under them or by their direction or authority and all other persons from attempting to compel the complainant, its officers, agents [fol. 57] or employees to observe or put in force the rates for telephone service prescribed by the Order of said Public Service Commission of Wisconsin designated "Opinion and Order Decided June 30, 1932" and further designated "In the Matter of the State-wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company", which proceeding bears the number "2-U-35", or to comply with the said Order; and to enjoin and restrain the defendants and each of them, and their clerks, servants and attorneys and all persons acting under them or by their direction or authority and all other persons from taking any steps or proceedings against the complainant, its officers, agents or employees, to enforce any penalties or other remedies for disregarding the rates prescribed by said Order or for failure in any other respect to comply with said Order; and for such other and further relief as may seem just and proper in the premises.

The grounds for said application are, among others, that the said order of said Public Service Commission of Wisconsin deprives the complainant of property without due process of law and denies to the complainant the equal protection of the laws in violation of the Fourteenth Amendment of the Constitution of the United States and of Article I, and particularly Sections 1 and 22 of said Article, of the Constitution of the State of Wisconsin, and said order is unconstitutional, unlawful unreasonable and void for the reasons, among others, that the rates prescribed by said order are confiscatory of the complainant's property used and useful in furnishing its telephone service, and that the said order was issued without notice or hearing thereon, and that the said order deprives the complainant of compensation for terminal toll service furnished by or through telephone exchanges and that the said Commission acted [fol. 58] as prosecutor in the matter of issuing said order and not quasi-judicially, and denied the complainant due process and proper procedure, and that no emergency existed or exists, and that no injury to the business or interest of the people or any public utility exists or has been threatened and that the presumptions provided by said Sections 196.40 and 196.46 of the Wisconsin Statutes are inapplicable to said order, or, if said sections or either of them are so applicable, then said statutes are unconstitutional; and also the further grounds that the rates prescribed by said order are confiscatory, unreasonable, unjust and unlawful; and that the existing rates of the complainant are less than reasonable and just rates; and that said Commission had no jurisdiction or power to make said order, and that said order is not in accord with and violates the Statutes of the State of Wisconsin; and also that the said order interferes with interstate commerce in violation of Section 8, Article I of the Constitution of the United States in attempting to make a change in the universal system of toll and exchange rates in effect in interstate commerce; and also that the said order purports to be issued under Section 196.70 of the Wisconsin Statutes based on an erroneous finding that an emergency exists within the meaning of said section, and that if said section empowers the issue of any such order it is an unconstitutional delegation of the legislative power in violation of

Section 1, Article IV of the Constitution of the State of Wisconsin.

The bill of complaint in said suit and the said application of said complainant for an interlocutory injunction have [fol. 59] been filed with the Clerk of the United States District Court for the Western District of Wisconsin.

Dated August 5th, 1932.

(Signed) Edwin S. Mack, (Signed) Frederic Sammond, Solicitors for Complainant. (Signed) Miller, Mack & Fairchild, of Counsel.

[fol. 60] [Endorsed:] Due service of the within notice admitted this 6th day of August, 1932. John W. Reynolds, Atty. Gen. Samuel Bryan, Asst. Atty. Gen. Alvin C. Reis, Solicitor for all Defendants. Philip P. LaFollette, Governor of Wisconsin. Due service of the within notice admitted this 8th day of Aug., 1932. John W. Reynolds, Attorney General of Wisconsin.

[fol. 61] In United States District Court

[Title omitted]

Answer of Defendants—Filed Aug. 26, 1932

The defendants answer the bill of complaint as follows:

1. Defendants admit the allegations in paragraph 1 of the bill of complaint, except that, as to the allegation that complainant furnishes interstate toll service, defendants [fol. 62] allege that complainant furnishes interstate toll service only in conjunction with other companies.

2. Defendants admit the allegations in paragraph 2 of the bill of complaint.

3. Defendants deny that the rates prescribed in the "Opinion and Order, decided June 30, 1932," of the Public Service Commission of Wisconsin (hereinafter referred to as the "Commission"), for the enjoining of which order this suit is brought, are confiscatory and that said "Opinion and Order" (hereinafter referred to as the "order") seeks

to deprive the complainant of its property without due process of law and denies the complainant the equal protection of the laws; and defendants deny that said order is null and void.

Defendants deny that the proceedings and methods of the Commission in and in connection with and precedent to said Commission's order deprive the complainant of its property without due process of law and that said proceedings and methods deny the complainant the equal protection of the laws and that said Commission's order interferes with and burdens interstate commerce; and defendants deny that said order is for those reasons null and void.

4. Defendants admit that on the 29th day of July, 1931, the Commission, acting under the provisions of Chapter 196, Wisconsin Statutes, commenced a proceeding entitled "In the Matter of a State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company," and that such proceeding bears the docket number 2—U—35 and that said proceeding was commenced by the service on the complainant of an order entitled "Order For a State-Wide Investigation," and defendants admit that Exhibit "A," annexed unto the bill of complaint and made a part thereof, as complainant avers, is a true copy of said order for investigation. Defendants admit that said investigation was thereafter pursued by the Commission and is still in progress. Defendants admit that following the institution of said investigation the Commission through its account-[fol. 63] ants and engineers has partially examined the books, records, reports and plant of the complainant and that on April 1, 1932, the Commission commenced a series of hearings thereon. Defendants further admit that said hearings continued on April 2, 4, 25, 26, 27 and on May 2, 11, 12, 13, 16, 17, 18 and 19 and on June 1, 2 and 3 in said year, and defendants admit that at said hearings the Commission, through its accountants and engineers, introduced testimony and exhibits into evidence.

Defendants deny that said testimony and exhibits refer to a "small" portion of complainant's business "taken as a whole" and allege that in substantial respects the testimony and exhibits refer to the Company's entire business and that in still other and substantial respects the testimony

and exhibits refer to a material part of the Company's business.

Defendants allege that at the date of filing the bill of complaint herein, the above referred to testimony and exhibits included approximately 2,050 typewritten pages of testimony and eighty-three (83) exhibits numbered consecutively from C1 to C83, and that said material reflects studies made by the Commission's staff over a period of a year, and defendants allege that at the date of filing the answer herein said record consists of approximately 2,400 typewritten pages of testimony and ninety-four (94) exhibits numbered consecutively from C1 to C94.

Defendants admit that the Commission's investigation has not been completed. Defendants allege that it will require not less than another year for the completion of the pending investigation, and that the Commission is proceeding with diligence and dispatch so that a final order may be entered as soon as practicable.

As to the allegation in the bill of complaint that said testimony and exhibits set forth alleged facts and deductions referring to a "more complete amount of data covering the complainant's plant and operations in the City of Madison" than for the "complainant's business taken as a whole," defendants admit that in some respects the data covering the complainant's plant and operations in the City of Madison are more complete and allege that in some [fol. 64] respects the data covering the complainant's business taken as a whole are more complete.

Defendants further allege that on August 14, 1930, the complainant made application to the Commission for an increase in rates at its exchange in the City of Madison, Wisconsin, and that the Madison case was docketed as U—4034 before the Commission, and that the record in said case was incorporated into the state-wide record 2—U—35 on April 25, 1932, and defendants further allege that said Madison record consists of approximately 1,400 typewritten pages of testimony and one hundred and fifty-three (153) exhibits numbered consecutively from 1 to 153, and that said record covers not only phases of business of the Wisconsin Telephone Company (hereinafter referred to as the "Company") but also said Company's relations with American Telephone and Telegraph Company and

Western Electric Company, Inc., and defendants further allege that hearings in this case were held intermittently between October 14, 1930, and July 17, 1931, and that at said hearings both the company and the Commission offered testimony and exhibits.

Defendants admit that the Commission introduced into the statewide investigation the testimony and exhibits of certain persons, as the bill of complaint describes them, "stated to be economists and statisticians," but defendants deny that the "statistical compilations" produced by said witnesses were "general" and allege that many of them were very specific and, as to the allegation in the bill of complaint that the "economic deductions" by said witnesses were "theoretic," defendants admit in part that they were "theoretic" and deny in part that they were "theoretic."

Defendants deny the argumentative allegation of the bill of complaint that the complainant was given no opportunity to present any evidence nor to bring the "real" facts to the attention of the Commission, excepting only cross-examination of part of the Commission's witnesses, as complainant avers, and defendants deny that said latter examination was limited by the Commission, and defendants further deny that no opportunity was given to present argument [fol. 65] on the law or the facts, other than argument as to the admissibility of certain of the Commission's evidence, as complainant avers.

In answer to the complainant's allegation that it "is informed and believes" that the state-wide investigation is to be continued, defendants admit that complainant is so informed and believes and defendants further allege as a fact that the state-wide investigation will be continued and is being continued by its accounting and research and engineering staff and that the date for resuming hearings was set for August 1, 1932, and by agreement between the Commission and the Company was re-set for August 22, 1932, and defendants allege that hearings were held on August 22, 23 and 24 and that further hearings will be held as soon as either the Commission or the Company is ready to proceed.

Defendants allege that the order herein sought to be enjoined is a temporary order issued for the maximum period of one year only, and defendants further allege that complainant has at all times an opportunity under the express

terms of said order to apply for a modification of said order if it feels itself aggrieved thereby, and defendants allege that complainant has not done so and accordingly has not exhausted its state remedies.

Defendants therefore say that this Honorable Court should not take jurisdiction of this cause to interfere with such an interlocutory order of state authorities expressly so limited and circumscribed.

5. Defendants admit that on June 30, 1932, the Commission issued its "Opinion and Order" (herein referred to as "order"), the enjoining of which is the purpose of this suit, and that said order consists of a summary of 10 printed pages and 156 printed pages of text and an index and glossary, and defendants further admit that Exhibit "B," annexed unto the bill of complaint and made a part thereof, as complainant avers, is a true copy of said order. Defendants admit that the Commission's order makes certain findings and has ordered complainant, on and after the beginning of the first billing period subsequent to July 31, 1932, to place into effect for all classes of exchange [fol. 66] service, with certain specified minor exceptions, a schedule of rates 12½% less than the schedule in force at the date of the Commission's order and that such rates are to remain in effect for a period of one year unless said order is altered or amended by the Commission. Defendants allege that jurisdiction by the terms of the order is also retained to revoke as well as amend or alter said order at any time during the period for which it is made effective. Defendants admit that the first billing period subsequent to July 31, 1932, occurred on August 1, 1932, and that additional billing periods occur regularly thereafter every six days. Defendants admit that no alteration or amendment of said order by the Commission has been made. Defendants allege that no application has been made by complainant for any alteration or amendment.

6. Defendants admit that complainant duly made application to the Commission on July 19, 1932, for rehearing with respect to the matters determined in and by the Commission's order and admit that Exhibit "C," annexed unto the bill of complainant and made a part thereof, as complainant avers, is a true copy of said application. Defendants deny, on information and belief, that the allegations of said application are true.

Defendants allege that said application consists of thirty-one (31) typewritten pages of legal size and forty-seven (47) main paragraphs and many sub-paragraphs, and that said application contains numerous allegations, figures and statistical compilations which overlap, repeat, re-state in different terms, add to and vary from the allegations of the bill of complaint.

Defendants make the present answer to paragraph 6 of the bill of complaint without prejudice to their motion, filed herewith, to strike, as impertinent and redundant, the allegation in paragraph 6 of the bill of complaint which refers to the application for rehearing and adds "and the allegations of which are true."

Defendants admit that on July 25, 1932, by direction of the Commission, an oral argument in connection with com- [fol. 67] plainant's application for rehearing was held before and heard by the Commission, at which complainant appeared by counsel and argued for said application and that on the same day the Commission denied the application.

Defendants annex hereto and make a part hereof a true copy, marked Exhibit "X," of the order of the Commission denying rehearing.

Defendants admit that on July 25, 1932, the Commission notified the complainant in writing that it construed Section 196.405, Wisconsin Statutes, to apply to complainant's application for rehearing and that consequently said section of the Statutes, as construed by the Commission, operated to stay the effectiveness of the Commission's order for ten (10) days after denial of rehearing and that, under said section of the Statutes, no penalties would apply during said ten days. Defendants admit that said period of ten days expired on August 4, 1932, and that on said date and thereafter, unless restrained by this Court, the said Commission's order is effective. Defendants deny that the complainant's property will be confiscated thereby, as alleged in the bill of complaint.

7. Defendants admit that the schedule of rates of the complainant in force at the date of the Commission's order was the existing schedule of rates of the complainant for exchange service on the date of filing the bill of complaint herein and that all said rates were in effect during the years

1931 and 1932 and for sometime prior thereto and that said rates were duly established by said complainant from time to time theretofore and filed with the Commission under its present name or under its former name of Railroad Commission of Wisconsin. Defendants deny as a matter of law that all of said rates received the approval of the Commission but admit that all such rates were accepted by said Commission for filing and further admit that many of said rates were fixed by express orders of said Commission. Regarding the allegation of the bill of complaint that on the date of the Commission's order said rates were and now are the lawful rates of the complainant, defendants admit that on the date of the Commission's order and on [fol. 68] the date of filing the bill of complaint herein, said rates were the duly filed and published rates of the complainant, and to that extent defendants admit that they were the lawful rates.

Defendants deny that such rates for exchange service are less than the value of the service rendered by said complainant and that the service is reasonably worth at least the rates being charged therefor at the date of filing the bill of complaint herein, and that said rates are less than just and reasonable rates. Defendants allege that such rates are unjust and unreasonable and discriminatory. Defendants have no knowledge as to whether the present rates for toll service rendered by said complainant are less than the value of the service rendered or whether the service is reasonably worth at least the rates now being charged therefor or whether such rates are less than just and reasonable rates.

8. Defendants deny, on information and belief, that the complainant's average investment during the year 1931 and during the first five months of 1932 in its property used and useful for furnishing the exchange service covered by its rates and deny that the average fair value of its said property in said periods, respectively, were as represented by the complainant in the table following the first sentence in paragraph 8 of the bill of complaint. Defendants specifically deny, on information and belief, each and every figure contained in the tabulation which follows the first sentence of paragraph 8 of the bill of complaint, to-wit:

	Average 1931	Average first 5 months 1932
Complainant's investment in its exchange plants and equipment alone (not including working capital, stores and supplies and going value)..	$53,515,430	$55,644,747
Complainant's investment in its exchange plants and equipment, plus stores and supplies, work-		
[fol. 69]		
ing capital and going value allocable thereto..	59,863,570	62,030,443
Fair value of complainant's exchange plants and equipment, plus stores and supplies, working capital and going value allocable thereto.....	55,895,026	57,903,995

Defendants deny, on information and belief, that the complainant's average investment during the same two periods in property used and useful for furnishing the entire telephone service of the complainant and deny that the average fair value of its said property during said periods, respectively, were as represented by the complainant in the table following the second sentence in paragraph 8 of the bill of complaint. Defendants specifically deny, on information and belief, each and every figure contained in the tabulation which follows the second sentence of paragraph 8 of the bill of complaint, to-wit:

	Average 1931	Average first 5 months 1932
Complainant's investment in telephone plants and equipment alone (not including working capital, stores and supplies and going value)..	$72,513,126	$75,529,369
Complainant's investment in telephone plants and equipment, plus stores and supplies, working capital and going value.....	81,135,066	84,024,134
Fair value of complainant's telephone plants and equipment, plus stores and supplies, working capital and going value.....	76,066,979	78,925,235

Defendants have no knowledge as to whether the complainant's average investment during the same two periods in its property used and useful for furnishing "intrastate exchange service (consisting of intrastate local service and [fol. 70] also the terminal or toll-board-to-subscriber-station service on intrastate toll business)" and have no knowledge whether the average fair value of its said property during said periods, respectively, were as represented by the complainant in the table following the third sentence in paragraph 8 of the bill of complaint, to-wit:

	Average 1931	Average first 5 months 1932
Complainant's investment in that portion of its exchange plants and equipment allocable to intrastate exchange service (not including working capital, stores and supplies and going value)	$52,520,000	$54,635,000
Complainant's investment in that portion of its exchange plants and equipment allocable to said intrastate exchange service, plus stores and supplies, working capital and going value allocable thereto	58,750,000	60,930,000
Fair value of that portion of complainant's exchange plants and equipment allocable to said intrastate exchange service, plus stores and supplies, working capital and going value allocable thereto	54,850,000	56,875,000

Defendants deny that intrastate exchange service consists of "intrastate local service and also the terminal or toll-board-to-subscriber-station service on intrastate toll business".

Defendants allege that all exchange service is intrastate. (Smith v. Illinois Bell Telephone Company, 282 U. S. 133.)

Defendants allege that "terminal or toll-board-to-subscriber-station service on intrastate toll business" is intrastate toll service.

Defendants make the present answer to the third sen- [fol. 71] tence in paragraph 8 of the bill of complaint without prejudice to their motion, filed herewith, to strike as argumentative, said allegation and the figures based thereon.

Defendants have no knowledge as to whether "the complainant's average investment during the same two periods in its property used and useful for furnishing all intrastate telephone business (consisting of its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls, (b) interstate exchange service, and (c) that portion of the toll business consisting of interstate toll calls)" and have no knowledge whether the average fair value of its said property during said periods, respectively, were as represented by the complainant in the table following the fourth sentence in paragraph 8 of the bill of complaint, to-wit:

	Average 1931	Average first 5 months 1932
Complainant's investment in its plant and equipment allocable to its intrastate telephone business (not including working capital, stores and supplies and going value)	$67,905,000	$70,965,000
Complainant's investment in its plant and equipment allocable to its intrastate telephone business, plus stores and supplies, working capital and going value allocable thereto	75,980,000	79,115,000
Fair value of complainant's plant and equipment allocable to its intrastate telephone business, plus stores and supplies, working capital and going value allocable thereto	71,230,000	74,155,000

Defendants deny that complainant's intrastate telephone [fol. 72] business consists of "its entire business, less (a) that portion of its exchange service constituting the terminal or toll-board-to-subscriber-station service on interstate calls, (b) interstate exchange service and (c) that portion of the toll business consisting of interstate toll calls."

Defendants deny that exchange service includes "the terminal or toll-board-to-subscriber-station service on interstate calls" and allege that such service is interstate toll service. Defendants allege that the complainant in deducting from its entire business only "(c) that portion of the toll business consisting of interstate toll calls" has treated as intrastate telephone business all toll business listed in its accounts as miscellaneous toll which involves service across state boundaries and that said latter business is interstate business.

Defendants make the present answer to the fourth sentence in paragraph 8 of the bill of complaint without prejudice to their motion, filed herewith, to strike, as argumentative, said allegation and the figures based thereon.

Defendants allege that on the face of the bill of complaint said complainant is setting out as a basis for relief an illegal allocation of its property between exchange and toll service and that complainant is including as property allocated to exchange rates a part of property which is properly and legally allocable to toll rates (Smith v. Illinois Bell Telephone Company, 282 U. S. 133) and that complainant is therefore alleging confiscation as to property allocable to rates not involved in this suit as confiscatory, and that therefore complainant is not entitled to relief in this suit.

Defendants have no knowledge as to whether the investment of the complainant in each of the classes of property

set forth in paragraph 8 of the bill of complaint and have no knowledge as to whether the fair value thereof was on June 30, 1932, and at the time of filing the bill of complaint herein, in excess of the amounts stated respectively as the average during the first five months of 1932.

Defendants allege, on information and belief, that in the year 1931 the average fair value of complainant's property used and useful in rendering local telephone service was not more than $36,250,000.

[fol. 73] 9. Defendants deny that the revenues produced by complainant's rates in effect at the date of filing the bill of complaint herein, less operating expenses and taxes of the complainant allocable thereto, leave available for return on its property, resulting from the operations of the complainant within the State of Wisconsin, in the year 1931 and the first five months of 1932, respectively, the amounts of $2,331,571 and $962,107 for "Exchange service," and of $2,891,481 and $1,036,526 for "Entire telephone business."

Defendants have no knowledge as to the figures set out in paragraph 9 of the bill of complaint in reference to "Intrastate exchange service" and "Entire intrastate telephone business."

Defendants allege, that after deduction of reasonable operating expenses and taxes and all other proper deductions, complainant had available for return on its property used and useful in rendering local telephone service, a sum not less than $3,812,227 in 1931.

10. Defendants deny that the reduction of the rates of the complainant directed by the Commission's order as applied to complainant's revenues, less operating expenses and taxes of the complainant allocable thereto, after adjustment of said operating expenses and taxes in all instances where the amount thereof would be modified as the result of reducing said rates, would leave available for return on its property, as the result of the operations of the complainant within the State of Wisconsin if such reduction of rates had been in effect, in the year 1931 and in the first five months of 1932, respectively, the amounts of $1,053,955 and $463,856 for "Exchange service" and $1,663,583 and $555,394 for "Entire telephone business."

Defendants have no knowledge as to the figures set out in paragraph 10 of the bill of complaint in reference to

"Intrastate exchange service" and "Entire intrastate telephone business."

Defendants allege that after deduction of reasonable operating expenses and taxes and all other proper deductions, complainant would have had available, after giving effect to the reduction in rates prescribed by the order herein sought to be enjoined, for return on its property [fol. 74] used and useful in rendering local telephone service, a sum not less than $2,245,777 in 1931.

11. Defendants deny that for a long time prior to June 30, 1932, or that on said date or at any time since, the fair annual return which complainant was entitled to earn from the rates imposed upon it by public authority, was and is an amount equal to "not less than 8% of the fair value at the time of its use of its property used and useful in the rendition of its service." Defendants allege that said rate of 8% is excessive and unnecessary to enable the Company to attract capital for the extension of its business and to assure to complainant a reasonable return and that to allow complainant the return of 8% to which it alleges itself to be entitled, would result in excessive and unreasonable profits to the Company.

12. Defendants deny that complainant's exchange rates at the date of filing the bill of complaint herein were less than just and reasonable rates. Defendants have no knowledge as to whether defendant's toll rates are less than just and reasonable rates.

Defendants deny, on information and belief, that the greatest annual return which complainant has been able to realize on either its exchange service or its entire telephone business in either the year 1931 or the first five months of the year 1932 was less than 4.5% per annum "on complainant's average investment in its plant and equipment, used and useful, respectively, for furnishing such service, not including working capital, stores and supplies and going value," and also deny that said return was less than 4.3% per annum on the fair value of complainant's property used and useful for furnishing such service. Defendants have no knowledge as to the figures referred to in the first sentence of paragraph 12 of the bill of complaint in reference to its intrastate exchange service and its entire intrastate telephone business.

Defendants allege, on information and belief, that the complainant was able to realize under its existing rates in the year 1931, after deducting all reasonable operating expenses and taxes and other proper deductions, an annual [fol. 75] return of not less than 10.5% on the fair value of its property used and useful in rendering local telephone service.

Defendants deny, on information and belief, that the greatest annual return which complainant would be able to realize upon its exchange service or its entire telephone business, after the application of the reduction of complainant's rates as directed in the Commission's order, would be less than 2.3% per annum on complainant's average investment in its plant and equipment used and useful for furnishing such service, not including working capital, stores and supplies and going value, and deny that such return would be less than 2.2% per annum on the fair value of complainant's property used and useful for furnishing such service.

Defendants have no knowledge as to the figures referred to in the second sentence of paragraph 12 of the bill of complaint in reference to its intrastate exchange service and its entire intrastate telephone business.

Defendants allege, on information and belief, that after deduction of reasonable operating expenses and taxes and all other proper deductions, complainant would have been able to realize, after giving effect to the reduction in rates prescribed by the order herein sought to be enjoined, an annual return in 1931 of not less than 6.1% on the fair value of its property used and useful in rendering local telephone service.

Regarding the allegation in paragraph 12 of the bill of complaint that complainant's revenues from its present rates and charges "are declining," defendants admit that on the date of filing the bill of complaint herein, complainant's gross revenues were declining. Defendants allege, on information and belief, that complainant's expenses were also declining. Defendants deny, on information and belief, that "the actual result of applying the rates for telephone service ordered by said Commission's order on and after August 4, 1932, would result in a rate of return for each class of telephone service (including exchange

service) and for all classes of telephone service rendered [fol. 76] by the complainant (and especially of complainant's total intrastate service and its intrastate exchange service) of even less than 2.2% per annum on the fair value of the complainant's property used and useful for furnishing such service."

13. Defendants deny that the rates ordered by the Commission's order are confiscatory and that they are not just and reasonable rates and that, if enforced, they will deprive complainant of its property without due process of law and will deny it the equal protection of the laws and that said Commission's order is unlawful, confiscatory, illegal, unconstitutional and void.

14. Defendants deny that the Commission's order on its face disregards complainant's surplus invested in its telephone business and allege that the Commission has given consideration to complainant's surplus. Defendants deny that the Commission's order shows on its face that said order allows said complainant a return of less than the legal rate of interest in Wisconsin, namely, 6%, on its investment in the property used and useful in rendering telephone service and less than 6% on the value of the assets represented by said complainant's common stock attributed to its exchange telephone business by the Commission. Defendants admit that the Commission's order provides no payment to said complainant for return on property located in its exchanges involved in furnishing toll service but deny that such property is capital of the exchange telephone business and defendants allege that such property is not property used and useful in rendering exchange telephone service. Defendants allege that, for any return on such capital and property, not covered by the toll rates of the Company, said Company has its remedy to establish toll rates which will cover such return and to apply to the Commission for such toll rates in any cases where said Commission has jurisdiction. Defendants deny, on information and belief, that the effect of said Commission's order on its face and according to said Commission's computation, is to reduce the return of complainant from its entire telephone business, "including exchange and toll," to less than 4⅓% on [fol. 77] the net assets represented by its common stock

on the basis of 1931 business, and to reduce said complainant's return on the basis of its business for the first five months of 1932 to a materially less amount. Defendants allege that the Commission has as yet made no complete investigation of the fixed capital account of the Company and has not completed its investigation of the property used and useful in rendering telephone service. Defendants allege, on information and belief, that the property accounts of the Company as carried on its books do not correctly represent the investment in property used and useful in rendering telephone service.

Defendants allege that after giving effect to the reduction in rates prescribed by the order herein sought to be enjoined, complainant would have earned in 1931, after deduction of reasonable operating expenses and taxes and all other proper deductions, a return equal to not less than 7.4% on the par value of the common stock assigned to the local portion of the exchange property and equal to not less than 6% on the par value of the common stock plus surplus thus assigned. Defendants allege that after giving effect to the reduction in rates prescribed in the Commission's order herein sought to be enjoined, complainant would have earned in 1931, after deduction of reasonable operating expenses and taxes and all other proper deductions, a return sufficient to pay a 6% dividend on the par value of the common stock assigned to the local portion of the exchange property, plus an additional amount available for surplus of not less than $287,985.

15. Regarding the allegation in paragraph 15 of the bill of complaint that complainant's rates for telephone service at the date of filing the bill of complaint herein, were less than reasonable and just rates, defendants deny that such rates for exchange service were less than reasonable and just rates and allege that they were unreasonable, unjust and discriminatory rates. Defendants have no knowledge as to whether complainant's rates for toll service are reasonable and just rates. Defendants admit that the Commission had and has no authority to prescribe rates to be [fol. 78] charged by the complainant in lieu of the rates in effect at the date of filing the bill of complaint herein, unless such rates were unjust, unreasonable, insufficient or unjustly discriminatory, and upon a valid finding to that effect. Defendants deny that the finding of the Commission

contained in the Commission's order that rates of the complainant were unjust and unreasonable, is contrary to the facts and void and deny that such invalidity also appears from the Commission's order; and defendants deny that the rates therein prescribed are contrary to law and void.

16. Defendants admit that the Commission's order is temporary. Regarding the allegation in the bill of complaint that the order "purports to be an order issued under the provisions of Section 196.70 of the Wisconsin Statutes based upon the erroneous finding that 'an emergency exists,' " defendants deny that the finding that "an emergency exists" is erroneous. Defendants further answer and allege as a matter of law that authority exists for the Commission's order both as an emergency order under Section 196.70, Wisconsin Statutes, and as a temporary order under Section 196.395, Wisconsin Statutes. Defendants deny that said order is illegal, unconstitutional and void because it deprives complainant of property without due process of law or denies it the equal protection of the laws.

Answering subdivision (a) in paragraph 16 of the bill of complaint that the Commission has no jurisdiction or power to make any temporary order, whether under said Section 196.70 or otherwise, without notice and hearing thereon, defendants deny that there was no notice and hearing and allege that there was notice and hearing.

Defendants deny that there "was not at any time and is not now any emergency under or as referred to" in Section 196.70, Wisconsin Statutes.

Defendants deny that no injury to the public or interests of the people or any public utility exists or has been threatened by reason of or in connection with the exchange rates of the complainant and deny that the alteration and change in complainant's rates, as ordered in said Commission's order, was and is not necessary to and will not prevent in- [fol. 79] jury to the business or interests of the public or any public utility.

Defendants allege that an emergency does exist within the meaning of Section 196.70, Wisconsin Statutes, and that said Commission's order is necessary to prevent injury to the business and interests of the people.

Defendants deny that the Commission made an "erroneous" finding that an emergency exists and deny that, in finding that an emergency exists under Section 196.70, Wis-

consin Statutes, the Commission was exercising legislative power and that the order is void and defendants deny that if said Section 196.70, Wisconsin Statutes, authorizes and empowers the issue of the Commission's order, said section is unconstitutional and void as a delegation of legislative power in violation of the Constitution of the State of Wisconsin.

17. Defendants deny that the toll and exchange service of said complainant constitues a single system and that its instrumentalities are essentially similar. Defendants admit that in operating practice toll service has its rate of charge fixed by the individual call but deny that this is "aside from the use of exchange terminal facilities." Defendants make this answer to said paragraph 17 of the bill of complaint without prejudice to their motion, filed herewith, to strike all of said paragraph following the words "The toll and exchange service of said complainant constitutes a single system" upon the ground that the remainder of said paragraph constitutes a pleading of evidence, is argumentative and impertinent.

18. Defendants deny that the toll rates of the complainant and its connecting companies, "according to their practice and the practice universally in use throughout the United States during the entire history of the telephone business" have covered and now cover toll telephone service from toll board to toll board only. Defendants make this answer to said allegation in paragraph 18 of the bill of complaint without prejudice to their motion, filed herewith, to strike the quoted portion of said allegation as argumentative and impertinent.

[fol. 80] Defendants deny that the exchange rates of the complainant have covered and now cover the furnishing of local service and "also of toll service between the toll board and the subscriber's station."

Regarding the allegation in paragraph 18 of the bill of complaint that this system of designating rates "both toll and exchange" has the "heretofore expressed approval of said Commission" and that said Commission itself has fixed the complainant's rates on said system, defendants admit that said system had the heretofore expressed approval of the former Railroad Commission in some cases before said

Railroad Commission and that in some cases the said Railroad Commission itself had fixed the complainant's rates on said system but defendants allege that said system is unreasonable and unjustly discriminatory and defendants furthey allege that said system is in violation of law and that the present Public Service Commission has no authority to fix the complainant's rates on said system. (Smith v. Illinois Bell Telephone Company, 282 U. S. 133.)

Regarding the allegation in paragraph 18 of the bill of complaint that the Commission's order "while eliminating from complainant's exchange rates all provision for meeting operating expenses and return on capital or the said element of terminal toll service furnished by or through the telephone exchanges, makes no provision for and does not authorize the complainant to obtain such compensation in any other rates or in any other way," defendants admit that said order makes no provision for rates for terminal toll service and allege that, if complainant's toll rates do not cover said terminal toll service at the present time, complainant has the remedy to establish toll rates which will cover terminal toll service and to apply to the Commission for such toll rates in any cases where said Commission has jurisdiction. Defendants admit that the Commission's order fails to make a provision for any allocation of exchange revenues between local and toll service and allege as a matter of law that such an allocation was not required to be made in said order. Defendants deny that said Commission's order is in this respect confiscatory and deny that it deprives the complainant of property without due process of law.

[fol. 81] 19. Defendants deny that said Commission's order makes a change in the "said universal system of designing toll rates and exchange rates in a single state" and deny that such a change if made "will disturb the entire telephone system throughout the United States" and deny that any provision or requirement of said Commission's order interferes with and burdens interstate commerce and deny that said Commission's order is in this respect illegal, unconstitutional and void.

20. Defendants deny that said Commission's order and also the Commission proceeding failed to comply with the Wisconsin statutes and also that they deprive the com-

plainant of property without due process of law or deny it the equal protection of the laws.

Defendants deny that said Commission's order was entered "without any hearing or presentation of evidence or opportunity for hearing by the complainant, excepting only a limited amount of cross-examination on certain of the Commission's witnesses." Defendants deny that "no notice was given to the complainant of the Commission's order or proposed entry of a temporary order or of an order under section 196.70 of the Wisconsin Statutes." Defendants deny that "said Commission acted as prosecutor in the hearing in said matter and not quasi-judicially." Regarding complainant's allegation in paragraph 20 of the bill of complaint that the Commission directed the preparation and presentation of evidence against the complainant, defendants admit that the staff of the Commission under the Commission's direction has made an investigation of the Company's business and that members of its staff offered testimony and exhibits in the state-wide proceeding 2—U—35. Regarding the allegation in paragraph 20 of the bill of complaint that "said Commission denied the complainant's requested access to statements prepared in advance for the press by members of the Commission's staff with its knowledge and approval, summarizing exhibits and setting forth the testimony of prospective witnesses as if given, which complainant required for cross-examination of witnesses and proper presentation of its case," defendants admit that they did [fol. 82] not furnish complainant with a copy of any such statement and allege that complainant had and has no right to access to press releases prepared by members of the Commission's staff and deny that complainant required or requires any such press releases for cross-examination of witnesses or proper presentation of its case. Defendants make this answer to said allegation in paragraph 20 of the bill of complaint without prejudice to their motion, filed herewith, to strike said allegation as impertinent and frivolous.

21. Defendants deny that the Commission acted as prosecutor in the above entitled proceeding and not quasi-judicially and deny that the complainant had no opportunity for a due hearing therein and deny that the presump-

tions provided for by Sections 196.40 and 196.46, Wisconsin Statutes, are not applicable to said Commission's order and deny that if said sections of the Statutes or either of them apply to said Commission's order or are applicable with reference to the same, then said Sections 196.40 and 196.46, Wisconsin Statutes, deprive complainant of property without due process of law and deny it the equal protection of the laws.

22. Defendants deny that the Commission's order contains "numerous errors of fact and findings contrary to the facts and also errors of law, all of which are more particularly set forth in said application for rehearing." Defendants make this answer to said allegation in paragraph 22 of the bill of complaint without prejudice to their motion, filed herewith, to strike said allegation as redundant and impertinent.

Defendants deny, on information and belief, that complainant's business has been conducted efficiently and economically during all of the times referred to in the bill of complaint and that it is now being so conducted.

Defendants allege, on information and belief, that complainant's business has been and is now being conducted uneconomically and extravagantly and particularly in the dealings of said complainant with American Telephone and Telegraph Company and in the purchase of its equip-
[fol. 83] ment, materials, supplies and services from Western Electric Company, Inc.

Defendants allege that one hundred per cent (100%) of the common stock of complainant Wisconsin Telephone Company is owned by American Telephone and Telegraph Company. Defendants allege that Western Electric Company, Inc., is a corporation and that in excess of ninety-eight per cent (98%) of its common stock is owned by American Telephone and Telegraph Company.

Defendants allege that complainant is a licensee of American Telephone and Telegraph Company and that said American Telephone and Telegraph Company and its associated and subsidiary companies constitute the "Bell System" and that said Western Electric Company, Inc., is the "manufacturing department" of the Bell System (Smith v. Illinois Bell Telephone Company, 282 U. S. 133) and that complainant purchases practically all of its

telephone equipment, materials and supplies from Western Electric Company, Inc.

Defendants allege as a matter of law that complainant is not entitled to relief in this suit until it establishes the reasonableness of the payments to American Telephone and Telegraph Company for rendering licensee services to complainant, by showing the costs to the American Company of such services, and that complainant is not entitled to relief in this suit, until it establishes that the net earnings on sales by Western Electric Company, Inc., to complainant are reasonable (Smith v. Illinois Bell Telephone Company, 282 U. S. 133).

Defendants deny that "all of the findings in said Commission's order purporting to justify adjustments or changes in the amount of expenses and their allocation are contrary to the facts" and deny that any of them is contrary to the facts.

23. Defendants deny that complainant is without any plain, adequate or complete remedy at law and allege that complainant has a plain, adequate and complete remedy at law in the courts of the State of Wisconsin by way of action in the Circuit Court of Dane County to set aside the order of said Commission under Section 196.41, Wis- [fol. 84] consin Statutes, and defendants allege that complainant has not resorted to said remedy at law in the State courts. Defendants further allege that complainant has the remedy of injunction procedure in the State courts under Section 196.43, Wisconsin Statutes, and has not resorted to said remedy.

Defendants admit that unless defendants are restrained and enjoined as prayed in the bill of complaint, defendants will attempt to compel complainant to comply with the Commission's order and should complainant refuse and fail to do so, to enforce the penalties prescribed by laws of the State of Wisconsin.

Defendants admit that the present number of complainant's subscribers in said State is more than 265,000 and that the average of the monthly bills rendered to them is less than $5.10 each.

Defendants deny, on information and belief, the other allegations in paragraph 23 of the bill of complaint.

24. Defendants further allege that it is the intent and purpose of defendants by the within answer to deny and controvert each and every allegation, assumption or statement contained in the bill of complaint whereby it is alleged, assumed or stated in any manner that the Commission's order sought herein to be enjoined had or has the effect of taking the property, or any of the property, of complainant without due process of law, or of denying to complainant the equal protection of the laws, or of confiscating the property of complainant, or any of it, or of interfering with interstate commerce, or that said Commission's order is for any reason unconstitutional and void.

Defendants allege in answer to each and every such allegation in the bill of complaint that the Commission's order was and is proper, lawful and non-confiscatory and that the reduction in rates therein ordered is reasonable, fair, lawful and compensatory.

Defendants respectfully submit to this Court that the bill of complaint herein is to a large degree argumentative and redundant, and that it contains much impertinent, redundant, argumentative and merely evidentiary material, all in disregard and violation of Equity rules [fol. 85] numbers 21 and 25 of this Court. Defendants have filed their motion to strike a large portion of such argumentative, redundant and impertinent and evidentiary matter and, in view of said disregard and violation by complainant of said Equity rules of this Court, defendants, although they file their answer at this time, do so under protest, and reserve all rights under their motion to strike.

25. Further answering, defendants allege that this Court is without jurisdiction to grant any of the relief asked for in the bill of complaint and defendants pray the same benefit of each of the facts and things above set forth, as if defendants had moved to dismiss the bill of complaint in these regards.

Wherefore defendants pray that all relief prayed for in the bill of complaint be denied, that the temporary re-

straining order be dissolved and that said bill of complaint be dismissed with costs.

Public Service Commission of Wisconsin. Theodore Kronshage, Jr., A. R. McDonald, David E. Lilienthal, Commissioners. John W. Reynolds, Attorney General of Wisconsin, by John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Dated August 26, 1932.

[fol. 86] *Duly sworn to by David E. Lilienthal. Jurat omitted in printing.*

[fol. 87] EXHIBIT "X" TO ANSWER

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

2-U-35

In the Matter of the State-wide Investigation, on the Commission's Own Motion, of the Rates, Rules, Services, Practices and Activities of the WISCONSIN TELEPHONE COMPANY

On Application for Rehearing

Within the twenty-day period prescribed by the statute the Wisconsin Telephone Company filed its application for a rehearing on this Commission's order of June 30th. The application being lengthy and in some respects not wholly clear to us, we requested oral argument upon the subject-matter of the petition, and such argument was made by the learned counsel for respondent on July 25th.

After a careful consideration of all of the issues set out in the application for rehearing and the able oral argument thereon, we find nothing in the application which was not considered in our original order or which would justify a rehearing, and the application is therefore denied.

This memorandum of opinion might well stop at this point. But in view of the great importance of this proceeding to the 300,000 subscribers of the respondent and to the respondent itself we are constrained to comment upon two of the issues raised in the application and argument.

1. Fair Return on Fair Value

Our original order permitted a return (based upon operations in 1931, the second full year of the depression period) which would cover all costs of operation, interest costs, depreciation, taxes, preferred dividends, a reasonable com- [fol. 88] mon dividend and about $300,000 to surplus. The return was not expressed in terms of a percentage of fair value, and authorities were cited supporting our conclusion that certainly for the purposes of a temporary interim order no such finding of fair value and percentage thereon was essential.

In respondent's application the claim is made that our order will produce a per cent return on the fair value of the property so low as to be unreasonable and confiscatory. Certain figures are claimed to represent the fair value of the property. Unless these base figures are accurate the percentages cited are meaningless.

Book value, depreciated or undepreciated, is not a fair value, under the decision of our Supreme Court in the second Waukesha Gas case, where at the suit of a public utility this Commission's long-established prudent investment basis was set aside, and in lieu thereof cost of reproduction at present-day prices and under present-day conditions was required as the basis.

What would be the result of applying present-day cost of reproduction under the rule in the McCardle case (relied upon by our Supreme Court in the Waukesha case)? The Telephone Company's property, it must not be forgotten, was largely constructed during a period of high prices. The fixed capital and work in progress as reflected in the books as of December 31, 1918, was $19,335,751; as of December 31, 1929, the same figure was $60,207,557—an increase of almost $40,000,000 during a period of high prices.

Counsel, in oral argument, indicated that by applying a conversion factor to book value a fair value based on the rule in the McCardle case would result, which would be about the same as the figure for book value or historical cost. But such method of determining the present cost of reproduction falls far short of meeting the requirements of the McCardle case.

If the plant required to serve the subscribers of the Wisconsin Telephone Company were to be reproduced today,

what kind of material and labor prices would be applied? It is common knowledge that distress labor rates prevail and that men of all grades can be secured in adequate num- [fol. 89] bers for the undertaking at levels far below the labor rates paid during the actual construction history of the Company. As for materials and apparatus, we know that Western Electric Company, from which most of the equipment might be secured, is operating at a small percentage of its capacity, and that an order for equipment to reproduce this plant (if prices on a competitive "arms-length" basis were made) could bring prices far below those prevailing during the historical period of construction.

Furthermore, the loss of stations recently experienced would influence the amount of property which would be constructed under the kind of hypothesis which underlies the McCardle decision; the criterion of how much plant would be needed would be not future conditions (more nearly normal, perhaps, when higher incomes would bring back many of those now disconnected) but conditions of July, 1932, the lowest point in the depression thus far.

A time of business stagnation, of ruinously low prices and "subsistence" labor rates, of rapidly fluctuating prices and values is not the time to call upon this Commission to base rates upon fair value, and thus defeat the Commission's desire and indeed its duty to preserve the stability of this essential business. We have an obligation to the investors in this property, and until specifically directed by the Courts we decline to proceed upon the basis of a fair value of the property under present conditions.

Only a few days ago the Department of Public Works of the State of Washington, in reducing the telephone rates of the West Coast Telephone Company operating in that state, made the following comment upon this issue of valuation and return. It will be noted that the Washington Commission went much further in its standard of fair compensation than the order of the Wisconsin Commission here objected to when it said in the West Coast case:

"In fixing a rate schedule for this company, the Department has not followed the conventional method of allowing rates that will earn a reasonable return on the value of the property. This method, although perfectly proper during

[fol. 90] normal times, would be entirely unworkable under the present conditions. All of the ordinary standards of value have shifted and it is impossible to designate any certain figures as a reasonable rate of return or any certain sum as the fair value of the property. * * * In these times, the most any business can hope for are revenues *sufficient to avoid insolvency and the consequent disintegration of the property.* * * * Any rate designed to earn a reasonable return according to 1928 or 1929 standards will only result in a loss of patrons. The Department believes that it is the duty of this Department * * * to preserve, if possible, the existing public service facilities. It has, therefore, tried to formulate a schedule of rates that the public can pay and which will yield sufficient income to *prevent the dissolution of the company.*" (Our italics.)

2. Losses in Revenue

In its application for rehearing the Company states that the Commission has erred in that it has, so it is claimed, disregarded the decline in exchange revenues during the year 1932 as compared with 1931, the Commission's determination of revenues being based upon 1931 operations. The application points to the loss of total stations during the first five months of 1932 and prophesies an increase in the amount of uncollectible revenues in the current year.

Rate-making, if it is to be practical and feasible, cannot take into account fluctuations in revenues from month to month. Some standard of probable revenues must serve as a basis for the Commission's computations.

During 1931 the exchange business of this Company suffered very little decline. 1931 was the second full year of the depression. We would probably be safe in assuming that 1932 revenues may and probably will fall below 1931, but there is no reason for the Commission to make such an estimate based upon a few months' operations and certainly not less than six months' actual operations. If it were otherwise and the Commission had to give consideration to losses or gains in every few months' period during which a rate will be in effect, obviously rate-making would become an impossible tangle.

We have taken two precautions to prevent any serious [fol. 91] injury to the Company as a result of the unfavorable and uncertain economic conditions which prevail but which at least until January 1, 1932, had not measurably

adversely affected this Company's exchange revenues. In the first place we have directed that the order be subject to modification upon evidence being produced that conditions have so changed that even though the order is temporary and of short duration it should be rescinded or altered because of radically changed conditions which may be found to exist. Second, we have ordered the Company to submit monthly operating and finacial reports, a most unusual provision in a rate proceeding so far as we know, so we will be currently informed of the developments of the Company's business.

We had in mind that losses in revenues might well occur in 1932 and made what we regarded as a conservative provision therefor in the form of a $288,000 cushion over and above the return as computed in our order at page 100.

We are not unmindful, however, that the situation may become acute even in the course of a few months and that the losses referred to may become so acute that we should give weight to them, in justice to the Company. It was in contemplation of just such possibility that the Commission's order provides express procedure for modification of the order upon the motion of the Company or of the Commission. Further recognition of this situation is reflected in the order of the Commission providing for monthly financial and operating reports so that the Commission on its own motion might initiate such modification if circumstances seem to warrant.

None of the other errors alleged in respondent's application and counsel's argument call for special mention in this opinion. They turn upon legal issues as to which a rehearing on the facts would not be of value. We find ourselves unable to agree with respondent's views upon these matters of law, and therefore adhere to our original conclusions.

[fol. 92] It is therefore ordered that the application for rehearing in the above matter be and the same is hereby denied.

Dated at Madison, Wisconsin, this 25th day of July, 1932.

Public Service Commission of Wisconsin. Theo. Kronshage, Jr., Chairman. A. R. McDonald, Commissioner. David E. Lilienthal, Commissioner.

Attest:

Wm. M. Dinneen, Secretary.

[fol. 93] [File endorsement omitted.]

Receipt of copy of the within answer admitted this 26th day of August, 1932, reserving and not waiving the complainant's rights to object to said answer or move to strike the same or otherwise move with reference to same.

Edwin F. Mack, Frederic Sammond, Solicitors for Complainant.

[fol. 94] [File endorsement omitted]

IN UNITED STATES DISTRICT COURT

[Title omitted]

NOTICE OF ADJOURNED HEARING OF APPLICATION FOR INTERLOCUTORY INJUNCTION—Filed Sept. 13, 1932

To the Hon. Philip F. LaFollette, Governor of the State of Wisconsin, and the Hon. John W. Reynolds, Attorney General of the State of Wisconsin, and to each and every of the above-named defendants:

You and each of you are hereby given notice that the application of the complainant for an interlocutory injunction in the above entitled suit originally set for hearing and determination in the Federal Court Room in the Postoffice Building in the City of Madison, State of Wisconsin, on the 20th day of August, 1932, at 10 o'clock in the forenoon of said day, was continued to and has been set for hearing and determination on the 21st day of September, 1932, at 10 o'clock in the forenoon of said day, in the Federal Court Room in the Postoffice Building in the City of Madison, State of Wisconsin.

Dated August 30, 1932.

Edwin S. Mack, Frederic Sammond, Solicitors for Complainant. Miller, Mack & Fairchild, of Counsel.

[fol. 95] Due service of the within notice admitted this 1st day of September, 1932.

John W. Reynolds, Attorney General; Samuel Bryan, Asst. Attorney General; Alvin C. Reis, Solicitors for all Defendants. Philip F. LaFollette, Governor of Wisconsin.

Due service of the within notice admitted this 9 day of September, 1932.

John W. Reynolds, Attorney General of Wisconsin

[fol. 96] [File endorsement omitted]

In United States District Court

[Title omitted]

Affidavits and Notice Thereof—Filed Sept. 21, 1932

Service admitted of the within Notice and of the twelve affidavits mentioned therein this 7th day of Sept. 1932.

John W. Reynolds, Samuel Bryan, Alvin C. Reis, Solicitors for All of the Defendants.

[fol. 97] In United States District Court

[Title omitted]

Notice of Affidavits

To John W. Reynolds, Attorney General; Samuel Bryan, Assistant Attorney General; Alvin C. Reis, Special counsel, Solicitors for the above-named defendants:

Please take notice that the complainant will file and make a part of the record in the above entitled suit and will present and use at the hearing of the application of the complainant for an interlocutory injunction in the above entitled suit, as well as on and in connection with any other matter in said suit to which the same may be pertinent, the affidavits of George F. Crowell, E. V. Cox, Edward A. Fritz, Fred E. Chandler, Frank M. McEniry, Joseph [fol. 98] F. Krizek, Maynard A. Cook, William F. Sloan, K. Lee Hyder, Bernard E. Sunny, Robert W. Baird and Allen G. Hoyt, hereto annexed, as well as the affidavits of George F. Crowell, Edward A. Fritz and Frank M. McEniry

verified on July 27, 1932, and filed in this suit on July 28, 1932.

Dated September 7, 1932.

Edwin S. Mack, Frederic Sammond, Solicitors for Complainant. Miller, Mack & Fairchild, of Counsel.

[fol. 99] In United States District Court

[Title omitted]

Affidavit of George F. Crowell

State of Wisconsin,
Milwaukee County, ss:

George F. Crowell, being duly sworn, on oath deposes and says:

I am the same George F. Crowell who made an affidavit herein, verified the 27th day of July, 1932, and am Chief Engineer of the complainant. This supplementary affidavit has been prepared in order to present a fair value of complainant's property, used and useful in its telephone service as of a later date than that heretofore presented and to correct and present in greater detail than was permitted by the time available for preparing my preceding affidavit, the methods used in arriving at the fair value of said property, and also to present some additional details on construction, maintenance and depreciation.

In addition to the valuation of complainant's property as of January 1, 1932, as presented in my said preceding affidavit, I have determined the fair and reasonable value as of July 1, 1932, of the property of the complainant used [fol. 100] and useful in and devoted exclusively by the complainant to the rendition of its entire telephone service in the State of Wisconsin and of its exchange service respectively. In determining the said valuation as of July 1, 1932, I have repriced the quantities of said property owned by the complainant on January 1, 1932, using prices of July 1, 1932, and have added thereto the amount of complainant's net additions to investment in property made between the said two dates. If I had included the addi-

tions made during said period at their cost, and subtracted displacements at July 1, 1932, reproduction cost prices (being the prices at which they were included), the resulting valuation of complainant's total plant and equipment as of July 1, 1932, would be higher than the valuation determined by the method used by me as hereinbefore described.

I have also determined the fair and reasonable average value of the said property used and useful in each of the said two classes of service, viz., complainant's entire telephone service and its exchange service, during the first six months of the year 1932, based upon the average of the fair and reasonable values of said property as of January 1, 1932, (as heretofore determined and presented and as modified herein), and as of July 1, 1932, as hereinbefore described. In making this determination of averages, I have used $78,344,097 and $57,446,437, respectively, as the fair and reasonable values of the complainant's entire telephone plant and equipment and of its exchange plants and equipment, as of January 1st, 1932, in lieu of the corresponding amounts as presented in my said preceding affidavit, which were respectively: $78,532,684 and $57,575,967. These changes in my valuations as of January 1st, 1932, have been made as the result of a more exhaustive study than was possible in the time available for preparation of my preceding affidavit, and are hereinafter referred to. Such change of said January 1, 1932, value also results in a change of the fair and reasonable average value during [fol. 101] the year 1931 to $75,886,455 for the complainant's entire telephone plant and equipment and $55,772,121 for its exchange plant and equipment in lieu of the corresponding amounts as presented in my preceding affidavit which were, respectively, $76,066,979 and $55,895,026, and these changes result also in corresponding changes of the fair and reasonable value of the complainant's plant and equipment allocable to its entire intrastate service and to its intrastate exchange service, respectively, which changes are carried forward and used in Exhibit E. A. F. No. 7 attached to the affidavit of Edward A. Fritz verified this day and hereinafter referred to. Said values as so changed as a result of such further study, in my opinion are at a minimum and are the values which the complainant's property or the part thereof named respectively have at least. Detailed description of the methods used and matters con-

sidered in all of the aforesaid valuations are hereinafter more fully set forth.

As a result of said computation and studies and my knowledge of the property and the exercise of my judgment, I have determined and am of the opinion that the fair and reasonable value of complainant's property used and useful in and devoted exclusively by the complainant to the rendition of its entire telephone service in the State of Wisconsin and of its exchange telephone service in the State of Wisconsin, respectively, as of July 1, 1932, and the average fair valuation of said property during the period from January 1, 1932, to July 1, 1932, is at least as much as follows:

	July 1, 1932	Average first six months 1932
Exchange plants and equipment	$57,699,187	$57,572,812
Entire telephone plant and equipment	78,865,558	78,604,828

I have prepared a statement of the detailed figures making up a basis for the foregoing valuation as of July 1, 1932, which is attached hereto, marked "Exhibit G. F. C. No. 1" [fol. 102] and made a part of this affidavit. The said statement sets forth the reproduction cost new and the reproduction cost new less depreciation for each class of property and the book value (being the complainant's investment therein) on June 30, 1932, of each class of property and the book account numbers thereof, which are the account numbers prescribed by the Interstate Commerce Commission. The data relative to book value and the account numbers have been supplied to me by Mr. E. A. Fritz, General Auditor of the complainant.

Each of the said elements of valuations in said exhibit, to-wit: reproduction cost new, reproduction cost new less depreciation and book value (being complainant's investment therein) is not only stated with reference to each class of property, but also is stated separately according to the complainant's classification of property between exchange, toll and total property.

In making the valuation of complainant's plant and equipment, I have taken as the quantities of each item of property the amount shown on the complainant's plant measurement records as of December 31, 1931, except for land, buildings, and central office equipment and for some

other classes of property where the book values of the plant have been used as reproduction costs, as hereinafter specifically stated. The complainant's plant measurement records are records of the quantities of each unit of plant and equipment in certain classes, and are records in which all additions to the plant are added when installed and from which all displacements of the plant are removed when the displacement occurs. The record is kept under the supervision and by the department of the General Auditor, Mr. E. A. Fritz, but in the work of my department frequent occasions occur for checking the accuracy of the plant measurement records and on each such occasion the cooperation of the Engineering Department and the Accounting Department is invoked to verify and, where nec- [fol. 103] essary, to correct the plant measurment record. These occasions for checking arise in connection with partial inventories of property, depreciation studies, studies to determine displacement unit cost and to subdivide the property accounts and the plant measurement records. These records are currently used in various ways in connection with the operation of the complainant's business and any material inaccuracy therein would be readily observed and corrected. Based upon the checks and studies of these records that have been made and upon my knowledge of the sources for and methods of maintaining the plant measurement records, I know them to be substantially accurate and reliable.

In determining the reproduction cost of plant and equipment, I have taken into consideration reproduction under the conditions as they exist in complainant's organization and have assumed the availability of its trained personnel. If a plant, such as the complainant's, were to be reproduced without the advantageous organization which the complainant possesses, a higher reproduction cost would result.

It is the complainant's practice to avoid cutting into pavements on streets and highways in the installing of underground plant by a policy of working in cooperation with municipal authorities, and installing conduits before the pavements are laid, as far as practicable. I have assumed that on reproduction this favorable condition would be available, which is doubtful. If the complainant's un-

derground plant were to be reproduced under existing conditions with the necessity of cutting and restoring paving wherever it exists above complainant's property, the cost of reproduction would be materially increased.

In my computations of reproduction cost, I have not included as a separate item engineering and other overhead. However, in determining reproduction cost of individual items of plant and equipment, I have considered in most [fol. 104] cases the reproduction cost of the property installed and, in so doing, have considered complainant's experience and records of cost, properly modified as to 1932 prices, and these costs include some allowance for the overhead above mentioned. The average of the total amounts for overhead items included in complainant's cost of new construction in the past seven and one-half years has been 10.6% of the direct cost of the work and an allowance for these items is automatically included in my determination of reproduction cost. These overhead items, which are included in complainant's cost of new construction, consist of engineering and plant supervision expense, tool expense and a portion of general expenses.

As is described in greater detail hereinafter, I have, with each class of plant and equipment, except where book values have been used, taken the latest available studies of cost, as developed for various purposes, and adjusted them to January 1, 1932, as to prices of materials by means of indices supplied in the Price Trend Review, and also, as to prices of central office telephone equipment installed, by indices furnished me by W. H. Harrison, Plant Engineer of American Telephone & Telegraph Company under date of September 24, 1929, and March 16, 1932. In determining corresponding prices of July 1, 1932, I have further indexed these results to July 1, 1932, on the basis of the indices supplied me by Mr. E. V. Cox, Assistant Vice President of American Telephone & Telegraph Company. The said Price Trend Review and all of the said indices are presented as exhibits to the affidavit of said E. V. Cox, verified August 11, 1932, in this suit.

In using the said indices, I have made careful examination of them based upon my personal knowledge and experience of comparable prices and am satisfied that these indices are based upon correct prices for materials at the respective dates involved.

[fol. 105] With the adjustment of prices of materials by indices as before described, I have determined the labor element in the current reproduction cost of outside plant classes, as hereinafter described,, by the use of labor units developed in connection with studies of the complainant's 1927 outside plant construction work, such 1927 labor units being the most recent costs which were readily available. In using these 1927 labor units, I have first determined that their use results in every instance in a lower valuation than would result from the application of 1932 wage rates. The wage rates of the complainant for outside plant labor, including unskilled or common labor, have in general been higher in the years intervening between 1927 and 1932, than they were in the year 1927. In concluding that 1927 labor units are conservatively low for use in an estimate of reproduction cost in 1932, I have considered, as the fact is, that the complainant's wage rate for common or unskilled labor in 1927 is lower than wage rates currently paid for such labor in 1932 by the City of Milwaukee in connection with its installation of telephone plant and equipment for its fire and police alarm system.

Specific application of labor units was required only in connection with determining reproduction cost of outside plant classes of property, since current labor rates are embraced in the indices applied to buildings and central office equipment. The labor element in station apparatus is provided in a class of property known as station installations, which is hereinafter stated, and was valued at a special price which included the labor element. The remaining classes of equipment, as hereinafter described, did not require the separate determination of labor rates or units.

In valuing the complainant's plant and equipment, the methods used as to each class of property were as follows:

1. In valuing the complainant's buildings, I used an estimated unit reproduction cost per cubic foot contained in [fol. 106] the buildings, considering each building separately. This unit reproduction cost for each building was corroborated, making allowance for special conditions affecting certain buildings, by the actual cost to the complainant of constructing each building, adjusted to price levels of January 1, 1932 and July 1, 1932, by means of

the index numbers published in the well-known publication entitled "Engineering News Record," which publication is regarded as authoritative in the engineering profession. In valuing buildings which on January 1, 1932 or July 1, 1932, respectively, were not completed, I first determined a valuation of the building as it would be if completed and have deducted therefrom the value of the uncompleted work thereon. The amount thus deducted for all buildings in arriving at my said valuations of January 1, 1932, was $85,689, and for exchange buildings $57,378. The amount thus deducted for all buildings in arriving at my said valuations of July 1, 1932, was $7,642, and for exchange buildings $7,542. In Exhibit G. F. C. No. 1, the Company's investment in buildings, as in all other property, is presented as per the books of account, and does not embrace investments actually made but still carried in the account called "Work in Progress."

2. In valuing the following items of plant and equipment, I used as the reproduction cost the complainant's investment therein:

Account No. 207—Right-of-way.
" " 211—Land.
" " 222—Other equipment of central offices.
" " 233—Interior block wires.
" " 235—Booths and special fittings.
" " 246 and 256—Submarine cable.
" " 261—Office furniture and fixtures.
" " 263—General store equipment.
" " 264—General stable and garage equipment.
" " 265—General tools and implements.
" " 274—Loud speaker and radio equipment.

[fol. 107] With the exception of land, the total of the complainant's investment in the above classes of property, as so used, in determining reproduction cost is less than 4% of the total reproduction cost as determined for all classes of property. These classes of property were included in reproduction cost according to the investment, either because little variation would be expected between cost and 1932 value owing to recent acquisition and other reasons, or because they comprise so negligible a portion of complainant's property as not to warrant a separate valuation.

3. The complainant's parcels of land and the respective investments therein were checked against the 1931 assessed valuation of said land (being the latest data available) obtained from the several assessment offices and adjusted to the so-called "real value" according to ratios obtained from reports of the Wisconsin Tax Commission and the Milwaukee County Assessor of Incomes. In some instances the assessed value was available on account of actual determined assessments and in other cases the assessed value was obtained by consideration of the assessed value of comparable neighboring properties. The total of the adjusted assessed value, determined as aforesaid of complainant's land is $1,247,410, as compared to complainant's investment as of December 31, 1931, of $1,067,852. The latter amount was used in my valuation as the lower figure.

4. In valuing the class of property known as central office telephone equipment (with the exception of magneto central office telephone equipment having a book investment on December 31, 1931 of $160,369 and central office tools and portable testing equipment having a book investment on December 31, 1931, of $149,505 and on which two items, book investments were used and with the further exception of the dial installations and manual toll installations hereinafter referred to) a study made in recent years for depreciation purposes, and kept current to December 31, 1931, was available by which all of the said equipment had been indexed to 1914 prices. This value was converted by me by the application of the indices here-[fol. 108] inbefore described to January 1, 1932 and July 1, 1932 prices. The book costs of dial installations and the installations of manual toll equipment as of December 31st, 1931, hereinafter listed, were adjusted directly to January 1st, 1932 and July 1st, 1932 prices by the use of the indices hereinbefore described. Each of the dial central office installations and each of the following installations of manual toll equipment were considered in reproduction cost as a single project because they were with minor exceptions so constructed and would be so constructed in reproducing the property:

Appleton Toll Office.
Eden Repeater station.

Hortonville Repeater station.
La Crosse Toll office.
Milwaukee Toll office.
Rhinelander Toll office.
Rice Lake Toll office.

The remainder of the said class of equipment was reduced in determining the reproduction cost by 17% from the results of the indexing hereinbefore described, in order to adjust the costs to the conditions which would exist under a single project reproduction as distinguished from the serial production which existed in connection with these installations. Manual central office telephone equipment other than that used in said toll offices was prorated in determining reproduction cost, between exchange and toll classes on the basis of relative book investments.

5. In the case of station apparatus, I had available a study of 1928 unit costs developed as a result of a 10% field check then made of the complainant's records. They were the latest data available in the necessary detail. I applied these unit costs to quantities of December 31, 1931, by types, based upon the complainant's plant measurement records and the results were then indexed by means of indices, hereinbefore described, to January 1, 1932, and July 1, 1932, values respectively. The foregoing method excludes the valuation of teletypewriters and Morse telegraph equipment, which were included at investment value [fol. 109] because the greater part of this equipment was installed late in 1931 and because the total amount thereof, in comparison to the remaining station apparatus, is negligible in that it amounted to only about 8/10 of 1% of the investment in station apparatus on December 31, 1931.

6. Station installations were priced at the average cost ($5.46) of complainant's installations during 1930. This unit was selected for conservatism and it is substantially lower than actual costs in 1931 and 1932.

7. In valuing private branch exchange equipment, dial or automatic equipment of this type was valued at the investment therein, due to the fact that 91.6% of the investment in this account on December 31st, 1931, was added since January 1st, 1930, and prices have not changed since

1929. Private branch exchange equipment of the type known as "manual non-multiple" was priced at 1931 construction unit costs, indexed to January 1, 1932 and July 1, 1932 prices by the material indices hereinbefore described. Private branch exchange equipment, known as "manual multiple," was valued by identification of the date and cost of each installation, indexed to January 1, 1932 and July 1, 1932, by the indices hereinbefore described. 96% of "manual non-multiple" and 80% of "manual multiple" equipment respectively consists of material costs.

8. The classes of equipment which I have included under the general description of "outside plant," consist of the following accounts:

Pole lines.
Aerial cable.
Aerial wire.
Underground conduit.
Underground cable.

For these classes of plant, I made a valuation based on April, 1931 material prices and 1927 average labor unit costs (both of which were available from a study made during 1931 for the complainant's use) applied to the plant quantities determined from the complainant's plant measurement records as of December 31, 1931. This value was [fol. 110] adjusted to January 1, 1932 and July 1, 1932 prices by means of the indices hereinbefore described, properly weighted and applied to the material prices in combination with the 1927 labor unit costs. This method involves the use of 1927 labor costs which, as hereinbefore indicated, are substantially below 1932 actual costs. Because plant quantities for these outside plant classes as of December 31, 1931 included materials entering into construction work in progress in various stages of installation, the complainant's investment in construction work in progress as of December 31, 1931 was deducted from the respective values as of January 1, 1932 and July 1, 1932 of plant quantities shown by the plant measurement records as of December 31, 1931. The net book additions to plant in service during the first six months of 1932 were then added to the July 1, 1932 value of the so adjusted plant

quantities as of December 31, 1931 to determine the value of the July 1, 1932 property in these classes.

This results in understating somewhat the value of the property in these classes used and useful as of January 1, 1932 and July 1, 1932. The amounts so deducted were as follows:

	Exchange	Toll	Total
Pole Lines	$3,438	$2,716	$6,154
Aerial Cable	11,423	25,030	36,453
Aerial Wire	.....	.....	.....
Underground Conduit	2,939	10,076	13,015
Underground Cable	42,493	25,811	68,304
	$60,293	$63,633	$123,926

9. In determining the reproduction cost on July 1, 1932, of interest during construction, I have computed this item at 6% of the reproduction cost new of total plant and equipment as of July 1, 1932 excluding interest during construction.

10. In valuing complainant's materials and supplies, I have taken as the reproduction value the book investment therein on July 1, 1932. A portion of this book investment, amounting to $85,766, represents equipment recently re- [fol. 111] tired from service and carried at salvage values, and a portion amounting to $113,100 represents motor vehicle equipment in storage. The remainder of the investment is in supplies currently and continuously purchased and used and the book value thereof corresponds very closely to present reproduction cost. The amount of investment in said current supplies is only the amount normally required for routine construction and maintenance work.

11. I have included in my determination of reproduction cost an amount representing working capital at 1% of complainant's investment in plant and equipment on July 1, 1932. I consider this a fair, necessary and conservative allowance for working capital and have ascertained that it is approximately the same as the amount of cash required for one month's operating expenses of the complainant.

12. In determining the reproduction cost as of July 1, 1932, I have included as going value 10% of the reproduction cost on July 1, 1932, of the physical property as herein

computed. I have, from my own knowledge and experience, considered the expenditure which would be incurred by a telephone utility under the most favorable conditions in reproducing its property, in building up the operating and maintenance organization, establishing routines, practices, and forms, acquiring subscribers, and in meeting fixed charges and operating costs on plant ready for service in excess of the revenue derived therefrom at reasonable and compensatory rates up to the time the business would be established. In determining and using this rate of 10% as going value, I have also considered the usual and customary engineering practices and my knowledge that in engineering valuations of telephone plants higher percentages have been used by qualified engineers in determining the item of going value.

From the reproduction cost new as of July 1, 1932, determined as aforesaid and set forth in greater detail in said Exhibit G. F. C. No. 1, I have determined the reproduction cost new less depreciation as of July 1, 1932, of the said [fol. 112] property in the amount hereinbefore presented, by reducing the reproduction cost new by the amount of actual existing depreciation, being the depreciation which would be ascertained by physical inspection. For this purpose, I have determined, from my own knowledge of the property and from recent personal inspections of representative portions thereof and my knowledge of the plant additions and retirements which are constantly being made and of the character of the complainant's plant and maintenance practices and activities, the percentage that the reproduction cost new less depreciation bears to the reproduction cost new of the said property. The percentages thus applied to each of the classes of property constituting the complainant's plant and equipment are set forth in detail in "Exhibit G. F. C. No. 2" and made a part of this affidavit. The composite of these percentages is 92.1% for the exchange plant and equipment, 94.4% for the toll plant and equipment, and 92.7% for all of the plant and equipment of the complainant, these percentages representing the relationship of the reproduction cost new less depreciation of the plant and equipment on said date to the reproduction cost new of the same.

I have given consideration to the length of time which it would take to reconstruct the plant of the complainant and have determined that this work would require from four to five years. I am of the opinion that, if the plant had been reproduced in the four or five years just ended and had been finished about July 1, 1932, the actual cost thereof would be greater than the amount which I have presented herein as the reproduction cost new of the complainant's plant on July 1, 1932, due to higher labor and material costs than have been used in my valuation. I am also of the opinion that, if the reproduction of complainant's plant were to be commenced at this time and completed four or five years hence, the cost of such future reproduction would [fol. 113] be greater than the amount I have herein presented as the reproduction value of said plant for the same reasons.

I have hereinbefore described the methods used in reaching a valuation of complainant's plant as of July 1, 1932. The valuations of complainant's property as of January 1, 1932, set forth by me in my said affidavit, dated July 27, 1932, were reached by substantially the same methods and with consideration of the same factors hereinbefore presented in detail. As hereinbefore stated, further study has made it possible for me to correct certain minor errors which entered into the determination of the valuation of complainant's property as of January 1, 1932, as presented in my said affidavit dated July 27, 1932. The corrections made in the said valuation embrace the adjustment of building valuations on account of the comparatively small amount of uncompleted work on buildings then under construction, as more particularly set forth above, and also corrections in small amounts of the valuation of other classes of property.

The complainant is engaged in a number of construction operations which were undertaken on the basis of studies made under my supervision covering the necessary expansion of and changes in plant which must be anticipated in order that the complainant may be prepared to give the service which is expected to be demanded hereafter. Few of these projects can be abandoned or suspended short of completion thereof without great waste of money as well as damage to complainant's future service.

[fol. 119]

EXHIBIT G. F. C. No. 1

Wisconsin Telephone Company

Valuation of Telephone Operating Property as of July 1, 1932

Company's Investment or Book Value as of July 1, 1932, Is Also Shown for Comparison

Class of property	Account number **	Exchange			Toll			Total		
		Book value (investment)	Reproduction cost new **	Reproduction cost new less depreciation	Book value (investment)	Reproduction cost new **	Reproduction cost new less depreciation	Book value (investment)	Reproduction cost new **	Reproduction cost new less depreciation
Right of Way	207	$237,423	$237,423$	$237,423	$296,895	$296,895$	$296,895	$534,318	$534,318$	$534,318
Land	211	951,765	951,765$	951,765	113,102	113,102$	113,102	1,064,867	1,064,867$	1,064,867
Buildings	212	6,244,206	5,518,926*	4,790,428	1,272,197	973,164*	952,728	7,516,403	6,492,090*	5,743,156
Central Office Telephone Equipt	221	11,766,527	10,360,561	10,062,079	5,398,045	4,917,459	4,802,197	17,164,572	15,278,020	14,864,276
Other Equipt. of Central Offices	222	326,691	326,691$	316,890	49,561	49,561$	48,074	376,252	376,252$	364,964
Station Apparatus	231	4,828,127	3,968,980	3,770,531	42,703	40,797	38,757	4,870,830	4,009,777	3,809,288
Station Installations	232	2,069,793	2,031,462	1,929,889	2,366	2,322	2,206	2,072,159	2,033,784	1,932,095
Interior Block Wires	233	24,250	24,250$	19,400	0	0$	0	24,250	24,250$	19,400
Private Branch Exchanges	234	1,648,204	1,543,510	1,466,334	0	0	0	1,648,204	1,543,510	1,466,334
Booths and Special Fittings	235	173,028	173,028$	155,725	28,156	28,156$	25,340	201,184	201,184$	181,065
Pole Lines	241, 251	3,510,215	5,428,215	4,342,572	5,681,195	6,638,119	5,974,307	9,191,410	12,066,334	10,316,879
Aerial Cable	242, 252	4,826,110	3,784,058	3,405,652	1,489,439	1,311,421	1,245,850	6,315,549	5,095,479	4,651,502
Aerial Wire	243, 253	3,007,383	1,954,412	1,661,250	3,468,181	2,543,816	2,416,625	6,475,564	4,498,228	4,077,875
Underground Conduit	244, 254	7,117,768	8,440,888	8,018,844	620,716	535,422	508,651	7,738,484	8,976,310	8,527,495
Underground Cable	245, 255	7,299,350	6,174,307	5,865,592	1,563,808	1,309,684	1,283,490	8,863,158	7,483,991	7,149,082
Submarine Cable	246, 256	146,781	146,781$	132,103	48,247	48,247$	43,422	195,028	195,028$	175,525
Office Furniture and Fixtures	261	524,574	524,574$	472,117	628	628$	565	525,202	525,202$	472,682
General Store Equipment	263	10,319	10,319$	9,287	142	142$	128	10,461	10,461$	9,415
General Stable & Garage Equipt	264	488,294	488,294$	390,635	21,623	21,623$	17,298	509,917	509,917$	407,933
General Tools and Implements	265	401,004	401,004$	340,853	14,718	14,718$	12,510	415,722	415,722$	353,363
Loud Speaker and Radio Equipment	274	13,066	13,066$	11,759	0	0$	0	13,066	13,066$	11,759
Interest During Construction	268	499,972	3,150,151/	2,901,067	234,466	1,130,717/	1,066,929	734,438	4,280,868/	3,967,996
Total Plant and Equipment		56,114,850	55,652,665	51,252,195	20,346,188	19,975,993	18,849,074	76,461,038	75,628,658	70,101,269
Material and Supplies	122	320,577	320,577$	320,577	116,236	116,236$	116,236	436,813	436,813$	436,813
Working Capital***	...	561,148	561,148	561,148	203,462	203,462	203,462	764,610	764,610	764,610
Going Value****	... ...	.....	5,565,267	5,565,267	.....	1,997,599	1,997,599	.....	7,562,866	7,562,866
Grand Total	... ...	$56,996,575	$62,099,657	$57,699,187	$20,665,886	$22,293,290	$21,166,371	$77,662,461	$84,392,947	$78,865,558

$ Book Value on July 1, 1932 taken as Reproduction Cost.
/ Represents 6% of Reproduction Cost of Plant and Equipment excluding Interest During Construction.
* Reproduction Cost New of Property Used and Useful as of July 1, 1932.
** Property on December 31, 1931 at Prices of July 1, 1932 plus Cost of Net Additions during first six months of 1932, except where indicated otherwise.
*** Working Capital estimated at 1% of Book Value of Plant and Equipment.
**** Going Value estimated at 10% of Reproduction Cost New of "Total Plant and Equipment."
$ $ Where two account numbers are shown the number for Exchange is shown first followed by the number for Toll.

In my said affidavit of July 27, 1932, I stated that the preventive maintenance practices of the complainant, pursued since the year 1926, have demonstrated definite improvement in the service and contribute to the economical maintenance and length of useful life of the property. The inauguration of preventive maintenance routines has been [fol. 114] a gradual process throughout the territory served by the complainant and for different classes of property of the complainant. Although inaugurated in 1926, the practice has not been generally effective since that day, having been adopted in some of the complainant's exchanges at much later dates. At the present time the practice has not been given complete application to all of the complainant's property. Some classes of complainant's plant were not placed on present preventive maintenance routines in any locality until the years 1929 and 1930. Despite this limited application of the practice, definite and measurable improvement in reducing the number of telephone troubles per station in a given period has been realized and these results are set forth in detail in "Exhibit G. F. C. No. 3," hereto attached and made a part of this affidavit. The exhibit shows that for the complainant's system as a whole the average time that a telephone is free from trouble affecting service has been increased from seventeen months in 1926 to twenty-five months in 1931, and that the number of troubles per annum for 100 average stations of the complainant's system as a whole, considering the entire subscribers' line from the switchboard to the subscriber station, was reduced from 70.26 in 1926 to 47.70 in 1931.

In my affidavit of July 27, 1932, I presented my valuation of complainant's plant and equipment as of January 1, 1932, the average for 1931 and the average for the first five months of 1932. These data were presented not only as to complainant's exchange plants and equipment and entire telephone plant and equipment, but also as to complainant's plants and equipment allocable to intrastate exchange service and complainant's entire intrastate service. As stated in the said affidavit, the allocation of my said valuations to the property of the complainant used in the said intrastate services was obtained from allocation factors furnished by Edward A. Fritz, the General Auditor of the complainant, and corresponded to the allocations [fol. 115] made by him as to the complainant's investment

in property for the same date and periods as stated in his affidavit verified July 27, 1932. In the affidavit verified by him this day, he has stated and set forth in some detail certain corrections in his said allocation of investment in plant and equipment to the intrastate services, although these corrections do not change the amount of allocable plant and equipment sufficiently to affect the rate of return thereon to a material extent. The corresponding corrections of the said allocations to intrastate services of the valuations set forth in my said previous affidavit are fully shown in the said affidavit of Edward A. Fritz verified this date and in particular in Exhibit E. A. F. No. 7 thereof, which I have examined and found correct.

In my affidavit of July 27, 1932, I stated that repeated studies had been made under my supervision to determine the useful life and probable salvage value of the different classes of property of the complainant in order to determine the proper rates to be applied to the complainant's property in establishing its depreciation reserve and that I have found and am of the opinion that the amount deducted by complainant from operating revenues in recent years, particularly the year 1931, on account of depreciation is and was necessary to provide an adequate depreciation reserve.

I have given special consideration to the criticisms of the depreciation rates of the following classes of property set forth in the Order of the defendant Public Service Commission of June 30, 1932 (Exhibit B attached to the complaint) the results of which are summarized on pages 60 to 62 of said Order:

In manual central office equipment, both exchange and toll, the proper current depreciation rate depends upon the average service life that the present existing equipment will have. The adjusted turnover method for determining service life of central office equipment is based upon past equipment retirements and it does not give any measure of the average service life which will be realized for [fol. 116] the present equipment and it is therefore not a correct method to use for this class of property of the complainant. It has not been used in the determination of the rates of depreciation used by the complainant in 1931 or 1932 for this class of equipment, but was used in the determination of complainant's earlier rate which the said

Commission has substituted therefor. About 90% of the central office equipment is retired from service as a part of the retirement of an entire central office as a single unit, the portions of central office equipment retired and charged to depreciation reserve prior to retirement of the equipment of the office as a whole, being about 10%. Consequently the past "turnover" used as a basis for the future is misleading owing to the limited number and lack of uniformity of retirements of offices as a whole. The present depreciation rates for manual central office equipment are based on a study as to the expected useful life and salvage value of this equipment, taking into consideration unity of retirement of central office equipment and the fact that this necessarily leads to a shortened life for all items added to the central office equipment in the latter period of the life of the central office. The complainant's depreciation rate, which was used in 1931 and 1932, for the class of property known as "other equipment of central offices" was established as a result of separate studies which are correct. By a coincidence the rate is the same as that established and used by the complainant for the class of property known as "central office telephone equipment." There is no relationship between the proper depreciation rate for central office telephone equipment and other equipment of central offices.

In dealing with the depreciation on station apparatus, consideration must be given to the fact that station apparatus has on the average an ultimate life of approximately 18 years, but such life is on the average devoted to three different uses, the average use in each location be- [fol. 117] ing approximately six years. In the salvage accounting treatment of station apparatus the use in each location has been dealt with as if it were a separate life, leading to a salvage value (because of its re-use) of an average of 95% at the end of each of the two first location lives and an average of 5% at the end of the final location life.

The complainant's plant has been a growing one and as a result of its past experience has shown a larger proportion of retirements at the end of the first two location lives than at the end of the third location life. Proper treatment of the matter should consider all three useful lives of each item of station apparatus in order that the depreciation expense may be distributed uniformly over all the years of

the ultimate useful life of the particular items and consideration of this fact and all other elements on this class of property, leads to the present annual depreciation charge of the complainant for such property, to-wit: 5%. In this connection it should be noted further that the introduction of new types of station apparatus, particularly the so-called hand set or cradle telephone, and also the introduction of dial station apparatus forecasts for the future a shorter average life of station apparatus than in the past, and therefore that the existing depreciation rate of complainant will probably prove inadequate in the future.

In establishing the proper depreciation rate for the class of property known as "private branch exchanges" and also for the class known as "booths and special fittings" the same considerations relative to successive service lives through re-use and consequent experience as to average salvage in the past are applicable and should be considered in the same manner as above presented in connection with [fol. 118] station apparatus. The complainant's present depreciation rates were established upon such considerations.

(Signed) George F. Crowell.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Dec. 11, 1932. Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

(Here follows Exhibit G. F. C. No. 1, side folio 119.)

[fol. 120] EXHIBIT G. F. C. No. 2

Wisconsin Telephone Company

Percentage That Reproduction Cost New Less Depreciation Bears to Reproduction Cost New—All as of July 1, 1932

Class of property	Exchange	Toll	Total
Right of Way	100%	100%	100.0%
Land	100	100	100.0
Buildings	86.8	97.9	88.5
Central Office Telephone Equipment	97.1	97.7	97.3
Other Equipment of Central Offices	97	97	97.0
Station Apparatus	95	95	95.0
Station Installations	95	95	95.0
Interior Block Wires	80	....	80.0
Private Branch Exchanges	95	....	95.0
Booths and Special Fittings	90	90	90.0
Pole Lines	80	90	85.5
Aerial Cable	90	95	91.3
Aerial Wire	85	95	90.7
Underground Conduit	95	95	95.0
Underground Cable	95	98	95.5
Submarine Cable	90	90	90.0
Office Furniture and Fixtures	90	90	90.0
General Store Equipment	90	90	90.0
General Stable and Garage Equipment	80	80	80.0
General Tools and Implements	85	85	85.0
Loud Speaker and Radio Equipment	90	....	90.0
Interest During Construction	92.1	94.4	92.7
Total Plant and Equipment	92.1	94.4	92.7
Material and Supplies	100	100	100.0
Total Plant, Equipment, and Material and Supplies	92.1	94.4	92.7

[fol. 121] EXHIBIT G. F. C. No. 3

Wisconsin Telephone Company

Troubles During Year Affecting Subscribers' Service per 100 Average Stations, Entire Company

Year	Central office equipment subscribers' line	Station equipment	Outside plant	Total subscribers' line
1926	7.28	40.46	22.52	70.26
1927	6.55	37.36	22.44	66.35
1928	5.45	36.59	18.41	60.45
1929	5.73	36.48	20.49	62.70
1930	7.96	34.73	18.16	60.85
1931	4.16	29.90	13.64	47.70

Average Time a Telephone is Without Trouble Affecting Service, Entire Company

Year	Months
1926	17
1927	18
1928	20
1929	19
1930	20
1931	25

[fol. 122] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF E. V. COX

STATE OF NEW YORK,
County of New York, ss:

E. V. Cox, being first duly sworn, on oath states:

I am fifty-eight years of age, reside in Plainfield, New Jersey and am employed at No. 195 Broadway, New York City, as Assistant Vice President by the American Telephone and Telegraph Company. I am a graduate of Yale [fol. 123] University, with the degree of Bachelor of Philosophy in mechanical engineering, and of Columbia University, with the degree of Electrical Engineer. For the last thirty-seven years I have been employed by the American Telephone and Telegraph Company in the following capacities:

For five years, from 1895 to 1899, as Inspector, Assistant Wire Chief, and General Inspector in installing and maintaining central office and substation equipment and in constructing and maintaining telephone pole lines and submarine cables.

For eight years, from 1899 to 1907, as Engineer in making general telephone engineering studies, in telephone repair shop practices, and in the design and construction of underground telephone conduits, having actual charge in the field of over 125 trench miles of such work.

For four years from 1907 to 1911, as Assistant to the General Superintendent of Plant with the duties of office manager.

For eight years, from 1911 to 1919, as Chief Accountant and General Auditor in general telephone accounting.

For three years, from 1919 to 1922, as Supply Contract Auditor in checking prices and services of the Western Electric Company, Inc., to the Associated Telephone Companies, including the Wisconsin Telephone Company and the American Telephone and Telegraph Company to ascertain whether such prices were fair and reasonable and the service efficient.

For ten years, from 1922 to date, as Assistant Vice President with the duties of continuing the work done as Supply Contract Auditor, and helping to render the supply service of the Western Electric Company, Incorporated, to the Associated Companies of maximum benefit to them.

The various positions which I have filled during the thirty-seven years I have been with the American Tele- [fol. 124] phone and Telegraph Company have enabled me to become familiar with the manufacture, sale, installation and maintenance of telephone apparatus, equipment and outside telephone plant. My work has also required me to become familiar with the business relations existing and that have existed for a number of years between the American Telephone and Telegraph Company, the Western Electric Company, Incorporated, and the Wisconsin Telephone Company and the other Associated Companies comprising the Bell System, of which the Wisconsin Telephone Company is one.

My duties as Supply Contract Auditor and Assistant Vice President arose out of an arrangement between the American Telephone and Telegraph Company, the Western Electric Company, Incorporated, and the Associated Companies, whereby the American Telephone and Telegraph Company, through its employees, investigates and checks the prices and services of the Western Electric Company, Incorporated, for sales of telephone apparatus, equipment, materials and supplies to the Associated Companies and to the American Telephone and Telegraph Company, to ascertain whether said prices are fair and reasonable. I am the employee of the American Telephone and Telegraph Company specifically charged with the performance of this duty. For thirteen years I have had complete access to the records of the said companies dealing with the prices of apparatus and supplies and have been engaged continuously in investigating and checking such prices.

My duties also make it necessary for me or my immediate subordinates to be familiar with the general competitive market prices of all comparable apparatus, equipment and supplies sold in the United States. The department under my supervision is constantly investigating these prices and keeps me informed as to them, and also under my super-

vision, reviews the prices of the Western Electric Company, Incorporated, to the Associated Companies, to the [fol. 125] American Telephone and Telegraph Company and to the companies through which the Western Electric Company, Incorporated, distributes its manufactures to the general trade. By general trade I mean telephone, telegraph and other companies not forming a part of the Bell System or controlled by it, the United States Government and other non-Bell interests both domestic and foreign. The Graybar Electric Company, Incorporated, is the domestic distributor of telephone apparatus and lead covered cable manufactured by the Western Electric Company, Incorporated. I, and under my supervision, my employees, make comparisons of the prices charged by the Western Electric Company, Incorporated, to the Associated Companies with the lowest prices charged by the Graybar Electric Company, Incorporated, for identical apparatus and material and with the lowest prices of substantially competing apparatus, materials and supplies which are sold by other manufacturers, principally the Stromberg-Carlson Telephone Manufacturing Company of Rochester, New York and the Kellogg Switchboard and Supply Company, the Automatic Electric Company and the American Electric Company of Chicago, Illinois. I know the prices charged by the competing manufacturers above referred to because the Associated Companies require the products of such companies for the maintenance and extension of former non-Bell properties which they have acquired and as a matter of routine the prices and discount sheets of these manufacturers are sent to me direct. In my studies I use the lowest prices indicated in these price lists and discount sheets which I ascertain by taking the list prices and deducting therefrom the maximum discounts applicable thereto. I have substantiated these prices by checking them against the prices actually paid by telephone companies which formerly were independently owned but which have been subsequently acquired by the Bell System and by the prices paid by certain independent telephone [fol. 126] companies which have permitted me to review their records of their purchases.

Based on data obtained by me, as above stated, I am accustomed to issue annually a compilation entitled "Price Trend" — with substantial accuracy, shows the price trends

of telephone *phone* apparatus and supplies bought by the Associated Companies of the Bell System from the Western Electric Company, Incorporated. The Price Trend Review also shows the indices from which the graphs are plotted. A copy of the last issue of the Price Trend Review compiled by me under date of April 1, 1932, is attached hereto marked Exhibit "A" and made a part hereof. A general description of the graphs and indices which, with substantial accuracy, shows the price trends of telephone apparatus, cable and supplies from the year 1913 to the last of the year 1931, is shown on page 5 of this issue. Where the trends therein shown are composites of several items, such as the trends for poles, exchange distributing wire, lead covered cable, etc., all items of the class are not included but only those of sufficient importance to give a substantially correct picture of the class as a whole and the actual prices of the Western Electric Company, Incorporated, to the Associated Companies are weighted by Bell System purchases. The specific purchases of the Wisconsin Telephone Company from the Western Electric Company, Incorporated, during the period covered by these trends may show some slight differences from the trends so indicated in the Price Trend Review but such differences would be negligible.

As stated above, the issue of the Price Trend Review, dated April 1, 1932, Exhibit "A" attached, covers the price trends of telephone apparatus, cable and supplies from the year 1913 to the end of the year 1931. I have reviewed the similar prices in effect July 1, 1932 and have weighted these prices in similar manner with the quantities used in [fol. 127] obtaining the indices for the year 1931 in Exhibit "A". The indices thus obtained bring down Exhibit "A" to the date of July 1, 1932 and are shown in Exhibit "B" attached and made a part hereof. The information therein contained has been furnished by me orally to the Wisconsin Telephone Company.

I have also reviewed the similar prices in effect August 1, 1932 and find these to be the same as of July 1, 1932 except in the case of copper and lead for which the August 1, 1932 indices are:

Copper	37
Lead	35

For more than twelve years, from 1920 to date, I have made a systematic comparison, as above stated, of the prices paid by the Associated Companies, including the Wisconsin Telephone Company, to the Western Electric Company, Incorporated, for apparatus and lead covered cable of Western Electric Company's manufacture and for materials purchased through its agency with the prices for similar apparatus, cable and materials paid by non-Bell Companies and charged by other manufacturers or suppliers.

In general my studies indicate that in every year for the past twelve years the Wisconsin Telephone Company has saved from 10% to 25% of cost with an average at least of 15% by purchasing Western Electric apparatus and lead covered cable and has saved from 3% to 10% of cost with an average at least of 8% by purchasing through the Western Electric Company, Incorporated, instead of from other manufacturers or suppliers, supplies not of Western Electric manufacture.

Under date of June 2, 1930 a modification was made in the Standard Supply Contract under which the American Telephone and Telegraph Company and the Associated Companies, including the Wisconsin Telephone Company, [fol. 128] purchase supplies not of Western Electric manufacture and reference thereto is made on page 5 of the April 1932 edition of the Price Trend Review, Exhibit "A". The contract formerly provided that the Telephone Companies should pay actual cost to the Western Electric Company plus specified remunerations thus requiring specific pricing for each lot of merchandise and necessitating burdensome clerical work. The Contract as modified under date of June 2, 1930, provides for firm prices established by the Western Electric Company from time to time, thus permitting average instead of specific costs to be used, the savings in clerical labor being reflected in the prices to the Associated Companies. My review of the pricing of such supplies to date shows that the benefits intended by the modification of said Contract have been reflected in the prices charged to the Associated Companies.

Under date of September 24, 1929, a letter signed by W. H. Harrison, Plant Engineer, entitled "Index Numbers for Manual Central Office Equipment" was issued by the American Telephone and Telegraph Company to the Chief

Engineers of all the Associated Companies of the Bell System, including the Wisconsin Telephone Company. This letter transmitted a sheet entitled "Index Numbers for Central Office Equipment (Including cost of equipment, Engineering and Installation)." A copy of this letter and the enclosure is attached hereto marked Exhibit "C", and made a part hereof. The index numbers shown in Exhibit "C" were developed in connection with my work on the Price Trend Review and were supplied to Mr. Harrison by me for transmission as above stated.

Under date of March 16, 1932 a letter signed by W. H. Harrison, Plant Engineer, entitled "Index Numbers for Central Office Equipment" was issued by this Company to the Chief Engineers of all the Associated Companies, including the Wisconsin Telephone Company. This letter [fol. 129] transmitted a sheet entitled "Index Numbers of the Cost of Central Office Equipment Installed (Costs as of January 1, 1926 taken as 100)". A copy of this letter and the enclosure is attached hereto marked Exhibit "D", and made a part hereof. The index numbers shown in Exhibit "D" were also developed in connection with my work in the Price Trend Review and were supplied to Mr. Harrison by me for transmission as above stated. I have reviewed the pricing in effect July 1 and August 1, 1932, and find that the index numbers shown in Exhibit "D" for January 1, 1932 are substantially correct for those latter dates.

(Signed) E. V. Cox.

Subscribed and sworn to before me this 11th day of August, 1932. My commission expires March 30, 1938. (Signed) H. W. Hollsberg, Notary Public, Kings County. Certificate filed in New York County. Clerk's No. 773, Register's No. 3-H-498. (Seal.)

(Here follows Exhibit "A" (E. V. Cox), side folios 130-130-31)

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EXHIBIT "A"
(E. V. Cox)

PRICE TREND REVIEW

AMERICAN TELEPHONE AND TELEGRAPH CO.
DEPARTMENT OF OPERATION
NEW YORK

APRIL 1, 1932

314B
130-1&2

PRICE TREND REVIEW

A GRAPHIC RECORD OF PRICE TRENDS

OF TELEPHONE APPARATUS AND SUPPLIES

BOUGHT BY

THE BELL TELEPHONE COMPANIES UNDER

THE STANDARD SUPPLY CONTRACT ARRANGEMENTS

WITH THE WESTERN ELECTRIC COMPANY, INCORPORATED

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PRICE TREND REVIEW

130-5&6

ISSUE APRIL 1, 1932

This set of trends has been prepared by the American Telephone and Telegraph Company for the use of the Bell Telephone Companies where it may be desirable to have a picture over a period of years of the fluctuations in prices of the principal items of telephone apparatus and supplies. For convenience, supplementary pages are furnished showing the index numbers plotted on each of the charts. Trends are shown for the years 1913 to date, with monthly index numbers for the year 1931, on items not of Western Electric manufacture including telephone booths which prior to January 1, 1930 were under this classification. Trends on items manufactured by the Western Electric Company are shown for periods of actual price change except in the cases of lead covered cable and booths which are on the basis of average annual prices, and manual central office equipment installed which after January 1, 1929 shows levels only as of the first of each year.

In the case of items of Western Electric manufacture the trends are based on actual selling prices to the Bell Telephone Companies. The trends for items not manufactured by the Western Electric Company are based, prior to June 2, 1930, on prices paid by the Western Electric Company and do not include contract remuneration, inspection, or transportation charges, and subsequent to June 2, 1930 on the basis of firm prices established by the Western Electric Company. A table showing the remuneration and inspection charges in effect during the period of the trends prior to June 2, 1930 is appended.

Where the trends are composites of the prices of several items, such as the trends for poles, insulators, exchange distributing wire, lead covered cable, station apparatus, etc., the several items included in the trend have been weighted with the respective quantities purchased.

These trends, being weighted with system purchases, may differ somewhat from those for specific companies due to the time elapsed between the stocking of the supplies by the Western Electric Company and the delivery of them to the Telephone Companies, to differences in the relative quantities of materials used by various companies, and to other causes such as slight price variations in the purchases for different companies.

E. V. COX,

Assistant Vice President.

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RATES FOR PURCHASING, WAREHOUSING AND STORING TELEPHONE SUPPLIES FOR THE BELL TELEPHONE COMPANIES BY THE WESTERN ELECTRIC COMPANY 1913 - 1930

SERVICE RENDERED	RATES EFFECTIVE							
	PRIOR TO SEP. 23, 1918	SEP. 23 1918	JUNE 1 1920	JULY 1 1920	NOV. 1 1920	SEP. 1 1922	JAN. 1 1926	SEP. 1 1929 TO JUNE 2 1930 (6)
DIRECT SHIPMENTS FROM SUPPLIERS								
HARD DRAWN BARE COPPER WIRE.....	1%	1%	1%	1%	1%	1.5%		
POLES.....	4%	4%	4%	4%	4%	4%		
STATIONERY AND OFFICE SUPPLIES...	4%	4%	4%	4%	6%	5%		
DIRECTORIES.....	0.5%	0.5%	0.5%	0.5%	1%	1%	3.5%	2.5%
PAPER FOR PRINTED FORMS.....			2%	2%	2%	2% *		
DIRECTORIES - NEWSPRINT		1%	1%	1%	1%	1% *		
COVER....		2%	2%	2%	2%	2% *		
OTHER NON WESTERN ELEC. SUPPLIES.	4%	4%	4%	4%	5%	4%		
STOCK SHIPMENTS FROM W.E. WAREHOUSES								
HARD DRAWN BARE COPPER WIRE.....	5%	5%	5%	5%	5%	5%		
STATIONERY AND OFFICE SUPPLIES								
SIMPLIFIED BILLING.....				5%	14%	10%	10%	9%
OTHER.....	6%	6%	6%	6%	15%	12%		
OTHER NON WESTERN ELEC. SUPPLIES.	6%	6%	6%	6%	8%	8%		

SERVICE RENDERED	RATES EFFECTIVE													
	PRIOR TO JUN. 1 1919	JUN. 1 1919	DEC. 1 1919	JUN. 1 1920	MAR. 1 1921	DEC. 1 1921	APR. 1 1923	JUN. 1 1923	JUL. 2 1923	JAN. 1 1924	JAN. 1 1925	JAN. 1 1926	APR. 1 1926	APR. 1 1927	SEP. 1 1929 TO JUN. 2 1930 (6)
		%	%	%	%	%	%	%	%	%	%	%	%	%	%
INSPECTION															
HARD DRAWN BARE COPPER WIRE.....	COST	0.25	0.25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5			
OTHER BARE WIRE, TIES, INSULATED WIRE, CABLE, STRAND	COST	0.25 -1	0.25 -1	0.7	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.5	0.5	0.3
CREOSOTED PINE POLES:															
FROM BEAUMONT.....	COST				4.	4.	4.	4.	4.	4.	4.	4.			
OTHER SOURCES.....	COST	4.	8.	8.	6.	6.	4.	4.	4.	4.	4.	4.			
BUTT TREATMENT - CEDAR POLES.....						2.5	2.5	2.5	2.5	*5.	*5.	*4.			
CHESTNUT POLES..								2.5	2.5	*5.	*5.	*4.	2.	1.8	1.5
UNTREATED CHESTNUT POLES.....										4.5	DISC				
OTHER TIMBER PRODUCTS.....	COST	3-12	3-12	5.5	4.	4.	4.	4.	4.	4.	4.	4.			
OTHER NON WESTERN ELEC. SUPPLIES.	COST	1.-3	1.-3	2.	2.	2.	2.	2.	2.5	2.5	2.5	2.			

* RATE APPLIES TO COST OF TREATMENT ONLY.

* AFTER JANUARY 1, 1926, REMUNERATION FOR PURCHASING PAPER FOR PRINTED FORMS AND DIRECTORIES IS PROVIDED IN THE REMUNERATION RATES ON DIRECT AND STOCK SHIPMENTS OF PRINTED FORMS AND DIRECTORIES.

6 AFTER JUNE 2, 1930, FIRM PRICES FOR TELEPHONE SUPPLIES WERE ESTABLISHED BY THE WESTERN ELECTRIC COMPANY, INCORPORATED.

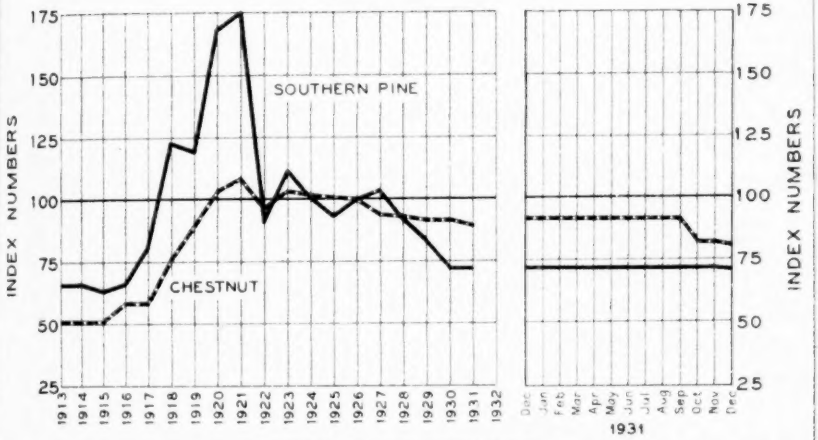
130-8

INDICES
1926 = 100

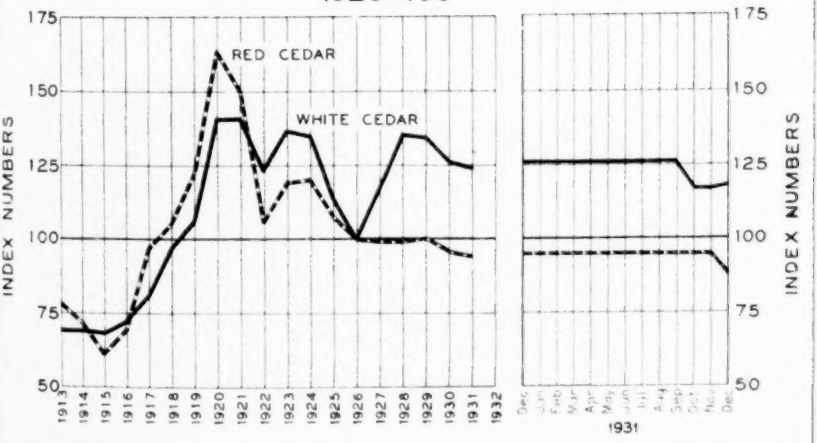
YEAR	POLES			
	CHESTNUT	CREOSOTED SOUTHERN PINE	NORTHERN WHITE CEDAR	WESTERN RED CEDAR
1913	51	66	69	78
1914	51	66	69	72
1915	51	63	68	61
1916	58	66	72	69
1917	58	81	81	97
1918	76	123	97	105
1919	89	119	106	122
1920	103	168	141	163
1921	108	175	141 *	150 *
1922	97	91	123	106
1923	103	112	137	119
1924	102 *	101	135	120
1925	101	93	114	108
1926	100	100	100	100
1927	94	103	117	99
1928	93	92	135	99
1929	92	83	134	100
1930	92	72	126	96
1931	89	72	124	94
JANUARY	92	72	126	95
FEBRUARY	92	72	126	95
MARCH	92	72	126	95
APRIL	92	72	126	95
MAY	92	72	126	95
JUNE	92	72	126	95
JULY	92	72	126	95
AUGUST	92	72	126	95
SEPTEMBER	92	72	126	95
OCTOBER	82	72	117	95
NOVEMBER	82	72	117	95
DECEMBER	81	71	118	88

* BUTT TREATED POLES IN YEARS FOLLOWING.

TRENDS OF PRICES
OF CHESTNUT & CREOSOTED SOUTHERN PINE POLES
1926=100



TRENDS OF PRICES
OF NORTHERN WHITE & WESTERN RED CEDAR POLES
1926=100



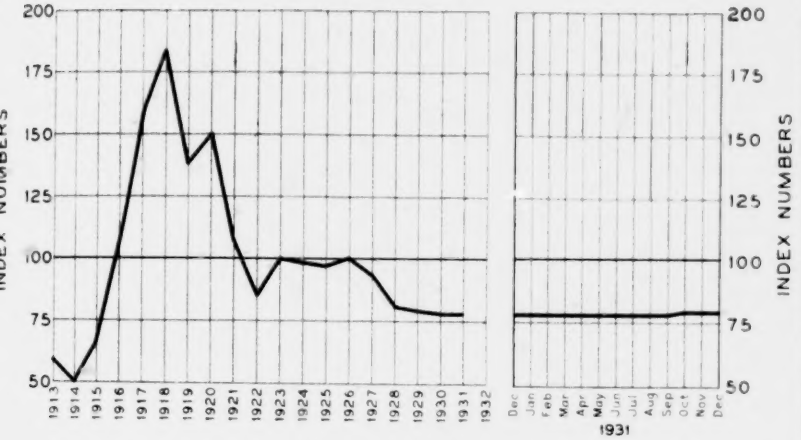
INDICES

1926 = 100

YEAR	POLE LINE HARDWARE	6000 LB. STRAND
1913	59	78
1914	50	73
1915	66	92
1916	107	128
1917	159	150
1918	184	157
1919	138	143
1920	150	154
1921	107	136
1922	85	106
1923	100	114
1924	98	122
1925	97	108
1926	100	100
1927	93	92
1928	81	91
1929	79	91
1930	78	88
1931	78	85
JANUARY	78	88
FEBRUARY	78	88
MARCH	78	88
APRIL	78	88
MAY	78	88
JUNE	78	88
JULY	78	82
AUGUST	78	82
SEPTEMBER	78	82
OCTOBER	79	82
NOVEMBER	79	82
DECEMBER	79	82

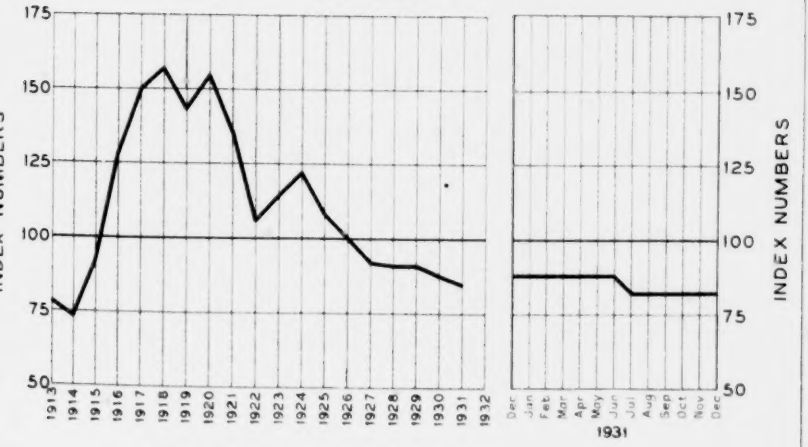
TREND OF PRICES OF POLE LINE HARDWARE

1926 = 100



TREND OF PRICES OF STRAND

1926=100

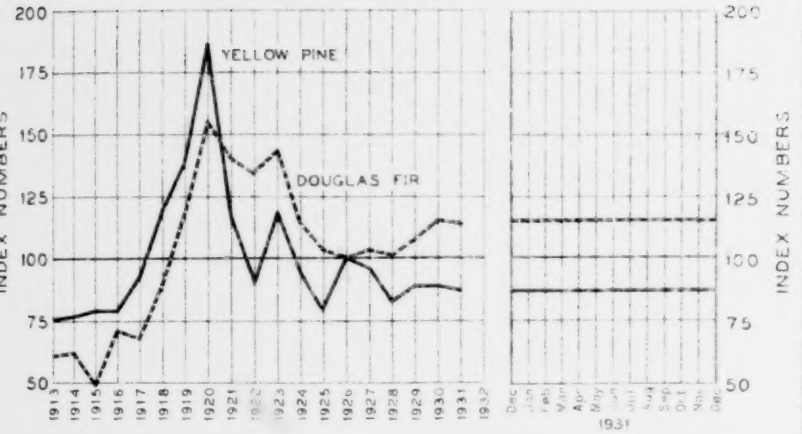


INDICES
1926 = 100

YEAR	CROSSARMS		LOCUST PINS
	YELLOW PINE	DOUGLAS FIR	
1913	76	61	47
1914	77	62	50
1915	79	49	49
1916	79	71	55
1917	93	68	65
1918	119	90	88
1919	139	118	101
1920	186	155	114
1921	117	140	95
1922	90	134	85
1923	118	143	118
1924	94	114	116
1925	79	103	113
1926	100	100	100
1927	96	103	101
1928	83	101	101
1929	88	108	97
1930	88	116	97
1931	87	115	97
JANUARY	87	115	97
FEBRUARY	87	115	97
MARCH	87	115	97
APRIL	87	115	97
MAY	87	115	97
JUNE	87	115	97
JULY	87	115	97
AUGUST	87	115	97
SEPTEMBER	87	115	97
OCTOBER	87	115	98
NOVEMBER	87	115	98
DECEMBER	87	115	98

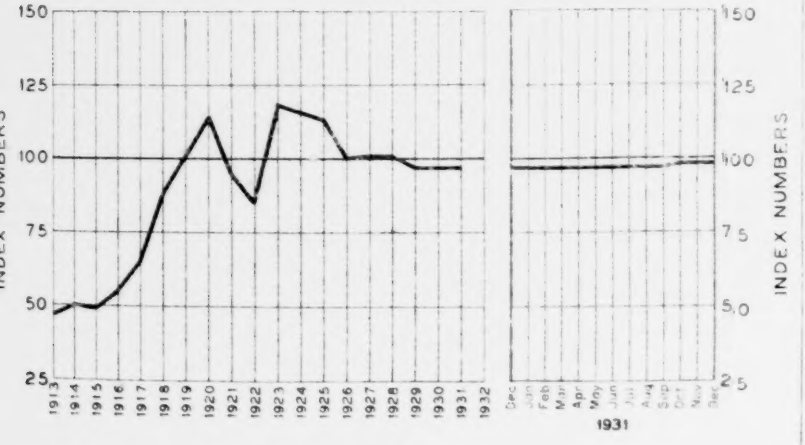
TRENDS OF PRICES OF CROSSARMS

1926 = 100



TREND OF PRICES OF LOCUST PINS

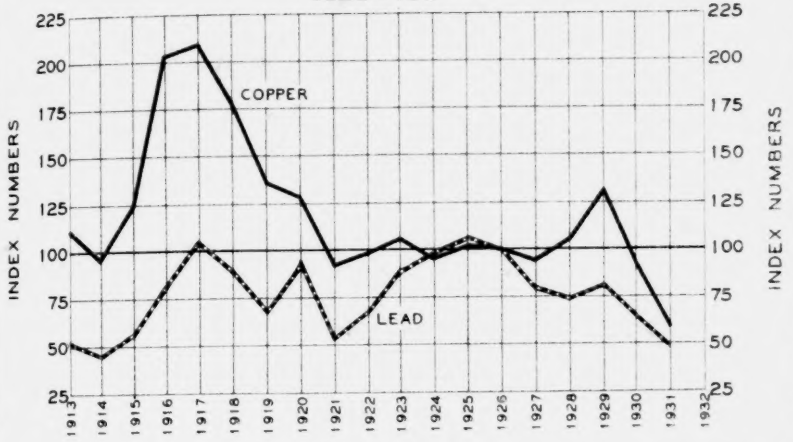
1926 = 100



INDICES 1926 = 100			
YEAR	MARKET QUOTATIONS		PRICE OF LEAD COVERED CABLE
	COPPER	LEAD	
1913	111	52	71
1914	95	45	64
1915	124	56	79
1916	203	82	114
1917	209	106	128
1918	178	88	116
1919	136	67	98
1920	128	95	113
1921	92	53	90
1922	98	67	87
1923	106	87	94
1924	95	97	96
1925	102	107	106
1926	100	100	100
1927	94	79	89
1928	105	75	82
1929	131	81	92
1930	94	65	84
1931	60	49	77

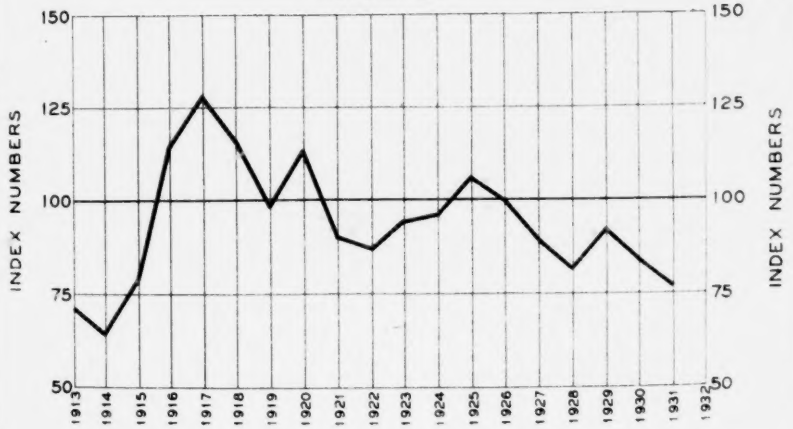
TRENDS OF MARKET QUOTATIONS OF COPPER AND LEAD

1926 = 100



TREND OF PRICES OF LEAD COVERED CABLE

1926 = 100



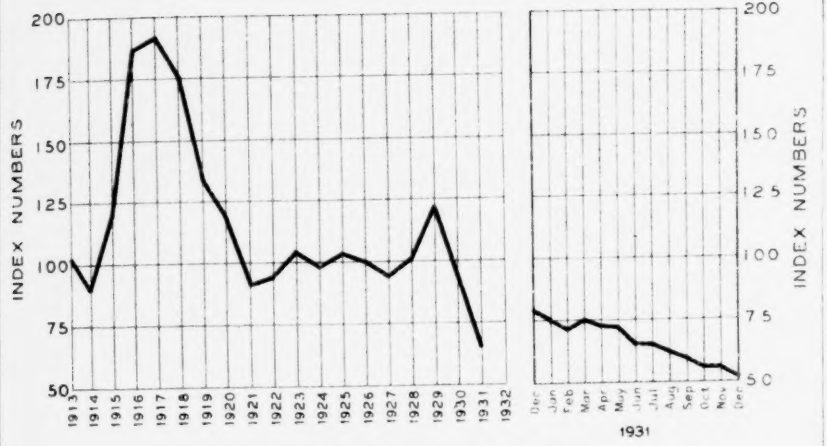
INDICES
1926 = 100

YEAR	WIRE		
	BARE COPPER	22* INSIDE	INSULATED EXCH. DISTRIBUTING
1913	103	70	90
1914	90	61	86
1915	120	62	81
1916	186	99	106
1917	191	127	130
1918	176	120	138
1919	133	133	133
1920	119	151	150
1921	91	93	99
1922	94	89	93
1923	104	105	106
1924	98	101	105
1925	103	103	104
1926	100	100	100
1927	94	85	89
1928	101	83	86
1929	122	82	85
1930	94	78	81
1931	65	71	72
JANUARY	75	74	76
FEBRUARY	72	74	76
MARCH	75	74	74
APRIL	73	71	73
MAY	72	71	73
JUNE	65	71	73
JULY	65	71	73
AUGUST	62	68	73
SEPTEMBER	59	68	73
OCTOBER	56	68	69
NOVEMBER	56	68	68
DECEMBER	52	68	67

* 19 TW. PAIR PRIOR TO 1927

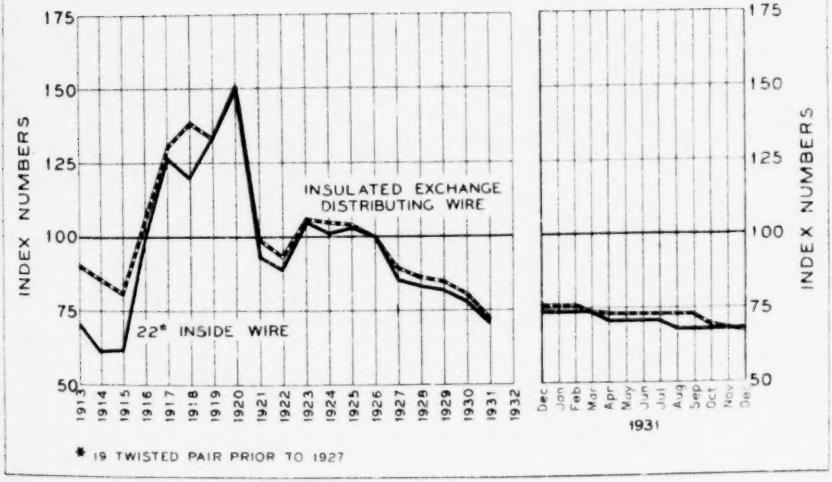
TREND OF PRICES OF BARE COPPER LINE WIRE

1926 = 100



TRENDS OF PRICES OF INSULATED WIRE

1926 = 100

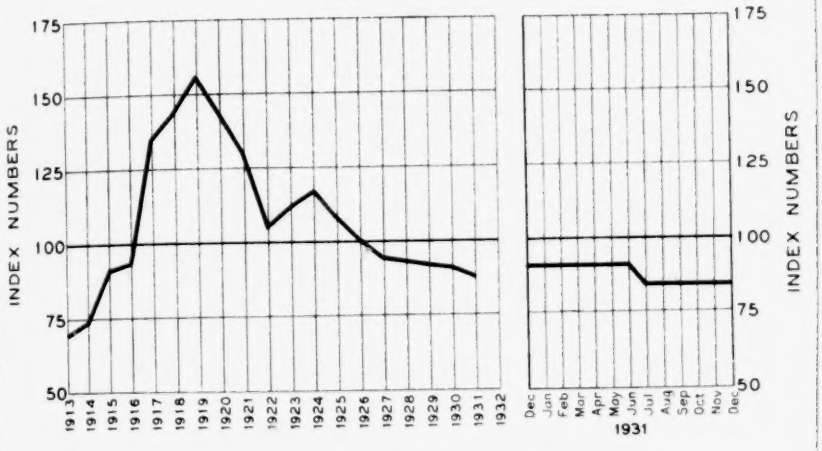


* 19 TWISTED PAIR PRIOR TO 1927

INDICES 1926 = 100		
YEAR	NO. 12 B.W.G. IRON WIRE	GLASS INSULATORS
1913	69	51
1914	73	48
1915	91	52
1916	93	52
1917	135	63
1918	144	82
1919	156	91
1920	143	107
1921	130	115
1922	105	101
1923	112	105
1924	117	98
1925	108	100
1926	100	100
1927	94	99
1928	93	97
1929	92	96
1930	91	93
1931	88	94
JANUARY	91	93
FEBRUARY	91	93
MARCH	91	93
APRIL	91	93
MAY	91	93
JUNE	91	93
JULY	84	95
AUGUST	84	95
SEPTEMBER	84	95
OCTOBER	84	95
NOVEMBER	84	95
DECEMBER	84	95

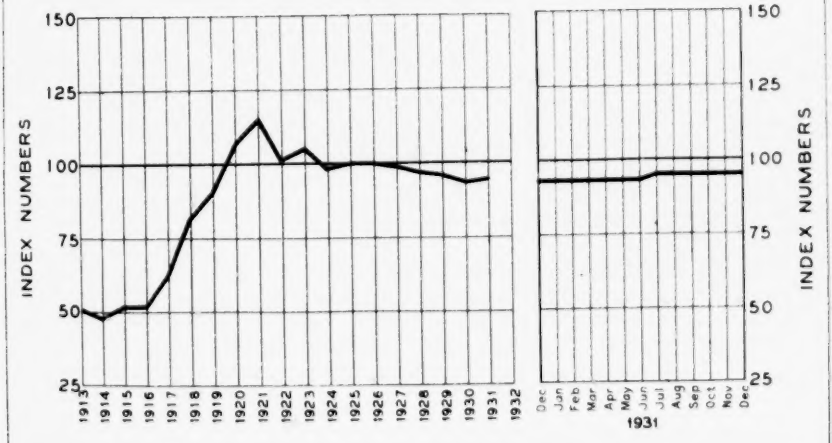
TREND OF PRICES OF IRON WIRE

1926=100



TREND OF PRICES OF INSULATORS

1926=100

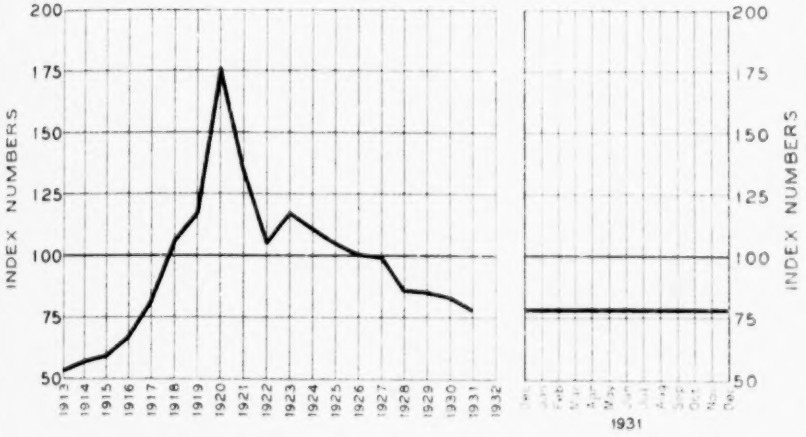


INDICES
1926 = 100

YEAR	CONDUIT INDICES	
	CREOSOTED YELLOW PINE	CLAY
1913	53	41
1914	57	37
1915	59	34
1916	67	55
1917	82	81
1918	106	83
1919	117	93
1920	175	143
1921	136	143
1922	105	79
1923	117	103
1924	111	107
1925	105	106
1926	100	100
1927	99	88
1928	86	80
1929	85	84
1930	83	84
1931	78	82
JANUARY	78	82
FEBRUARY	78	82
MARCH	78	82
APRIL	78	82
MAY	78	82
JUNE	78	82
JULY	78	82
AUGUST	78	82
SEPTEMBER	78	82
OCTOBER	78	82
NOVEMBER	78	82
DECEMBER	78	82

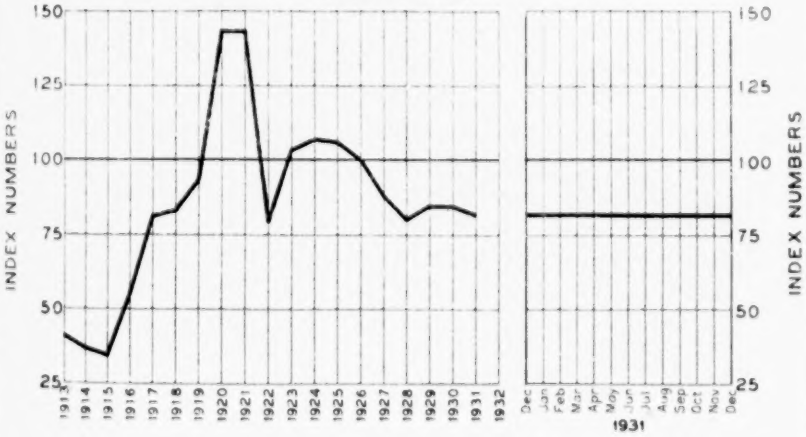
TREND OF PRICES
OF CREOSOTED YELLOW PINE CONDUIT

1926=100



TREND OF PRICES OF CLAY CONDUIT

1926=100



MANUAL CENTRAL OFFICE INDICES
JANUARY 1, 1926 = 100

PERIOD	INDEX	ANNUAL AVERAGES YEAR	ANNUAL AVERAGES INDEX
JAN. 1, 1913 - DEC. 31, 1914	66	1913	66
		1914	66
JAN. 1, 1915 - DEC. 31, 1915	68	1915	68
JAN. 1, 1916 - FEB. 28, 1917	71	1916	71
MAR. 1, 1917 - DEC. 31, 1917	96	1917	92
JAN. 1, 1918 - DEC. 31, 1918	102	1918	102
JAN. 1, 1919 - OCT. 31, 1919	105		
NOV. 1, 1919 - MAY 31, 1920	115	1919	107
JUNE 1, 1920 - DEC. 31, 1920	134	1920	126
JAN. 1, 1921 - DEC. 31, 1921	136	1921	136
JAN. 1, 1922 - JUNE 30, 1922	130		
JULY 1, 1922 - NOV. 30, 1922	121		
DEC. 1, 1922 - DEC. 31, 1923	115	1922	125
		1923	115
JAN. 1, 1924 - JUNE 30, 1924	119		
JULY 1, 1924 - DEC. 31, 1924	109	1924	114
JAN. 1, 1925 - SEP. 30, 1925	107		
OCT. 1, 1925 - DEC. 31, 1925	106	1925	107
JAN. 1, 1926 - APR. 30, 1926	100		
MAY 1, 1926 - JULY 31, 1926	99		
AUG. 1, 1926 - AUG. 31, 1926	97		
SEP. 1, 1926 - SEP. 30, 1926	95		
OCT. 1, 1926 - OCT. 31, 1926	94		
NOV. 1, 1926 - MAR. 31, 1927	93	1926	97
APR. 1, 1927 - AUG. 31, 1927	91		
SEP. 1, 1927 - DEC. 31, 1927	88	1927	91
JAN. 1, 1928 - JAN. 31, 1928	87		
FEB. 1, 1928 - MAR. 31, 1928	86		
APR. 1, 1928 - DEC. 31, 1928	80	1928	82
*JAN. 1, 1929 -	80	1929	78
JAN. 1, 1930 -	76	1930	80
JAN. 1, 1931 -	85	1931	86
JAN. 1, 1932 -	87		

* COMMENCING JAN. 1, 1929 LEVELS ARE SHOWN ONLY AS OF THE FIRST OF EACH YEAR.

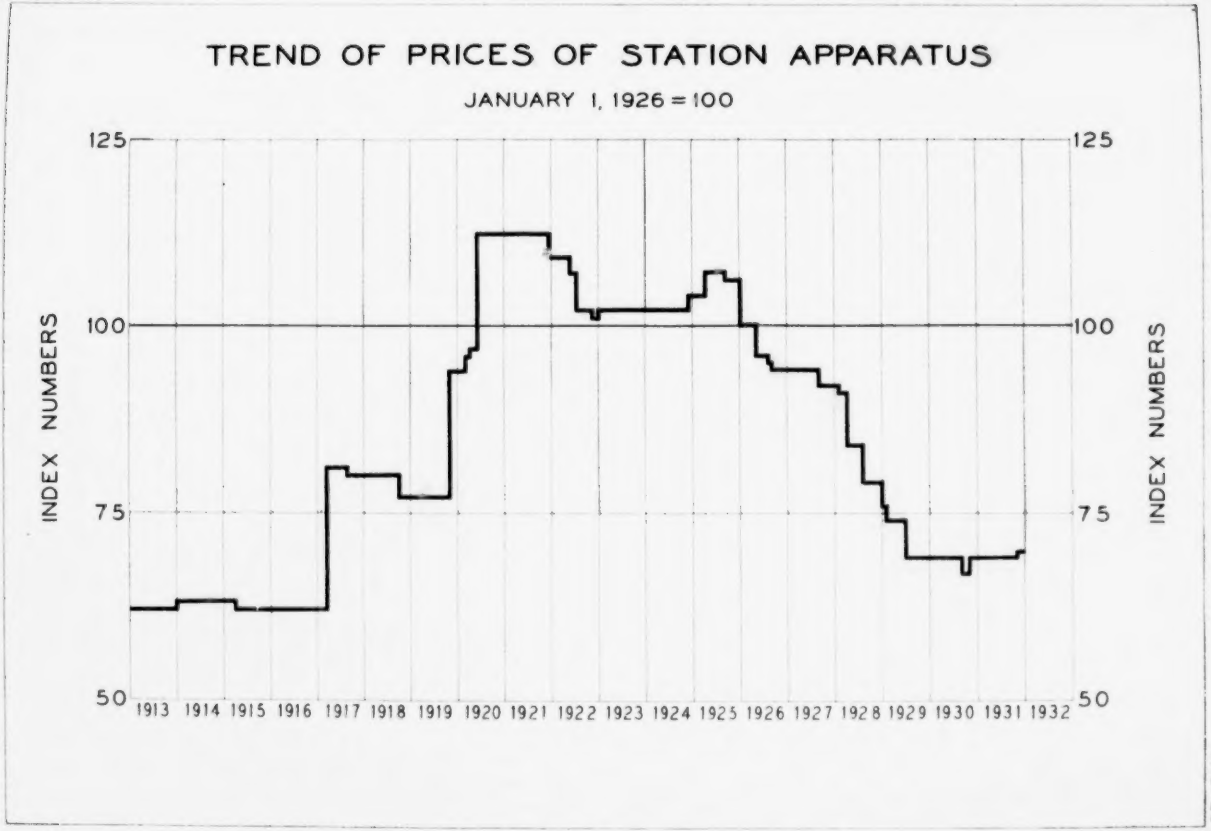
TREND OF PRICES OF MANUAL C. O. EQUIPMENT INSTALLED

*COMMENCING JAN 1, 1929 LEVELS ARE SHOWN ONLY AS OF THE FIRST OF EACH YEAR

130-23

STATION APPARATUS INDICES
JANUARY 1, 1926 = 100

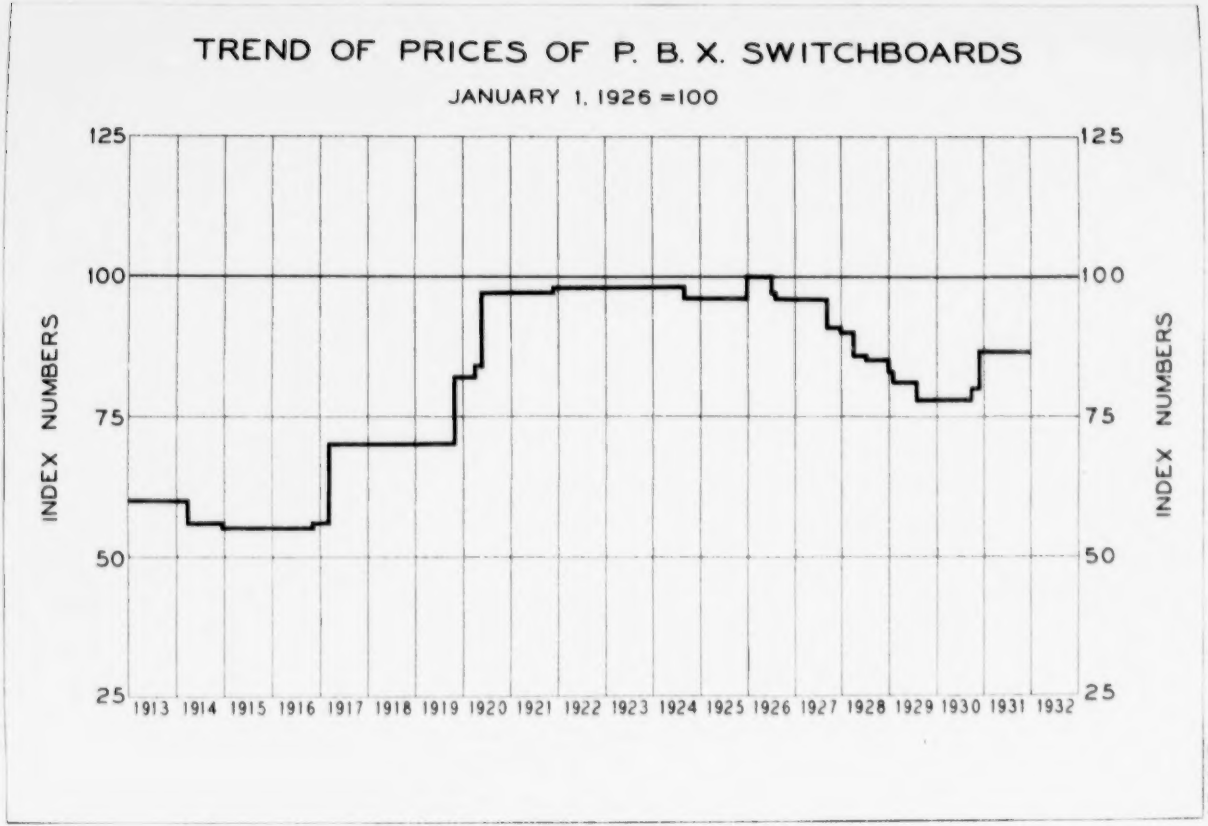
PERIOD	INDEX	ANNUAL AVERAGES	
		YEAR	INDEX
JAN. 1, 1913 - DEC. 31, 1913	62	1913	62
JAN. 1, 1914 - MAR. 31, 1915	63	1914	63
APR. 1, 1915 - MAR. 7, 1917	62	1915	62
		1916	62
MAR. 8, 1917 - AUG. 14, 1917	81		
AUG. 15, 1917 - SEP. 30, 1918	80	1917	77
OCT. 1, 1918 - OCT. 31, 1919	77	1918	79
NOV. 1, 1919 - FEB. 29, 1920	94	1919	80
MAR. 1, 1920 - MAR. 31, 1920	96		
APR. 1, 1920 - MAY 31, 1920	97		
JUNE 1, 1920 - DEC. 9, 1921	112	1920	105
		1921	112
DEC. 10, 1921 - MAY 14, 1922	109		
MAY 15, 1922 - JUNE 30, 1922	107		
JULY 1, 1922 - NOV. 14, 1922	102		
NOV. 15, 1922 - DEC. 29, 1922	101	1922	105
DEC. 30, 1922 - NOV. 30, 1924	102	1923	102
DEC. 1, 1924 - MAR. 31, 1925	104	1924	102
APR. 1, 1925 - AUG. 31, 1925	107		
SEP. 1, 1925 - DEC. 31, 1925	106	1925	106
JAN. 1, 1926 - APR. 30, 1926	100		
MAY 1, 1926 - JULY 31, 1926	96		
AUG. 1, 1926 - AUG. 31, 1926	95		
SEP. 1, 1926 - AUG. 31, 1927	94	1926	97
SEP. 1, 1927 - JAN. 31, 1928	92	1927	93
FEB. 1, 1928 - MAR. 31, 1928	91		
APR. 1, 1928 - JULY 31, 1928	84		
AUG. 1, 1928 - DEC. 31, 1928	79	1928	84
JAN. 1, 1929 - JAN. 31, 1929	76		
FEB. 1, 1929 - JUNE 30, 1929	74		
JULY 1, 1929 - DEC. 31, 1929	69	1929	72
JAN. 1, 1930 - AUG. 31, 1930	69		
SEP. 1, 1930 - OCT. 31, 1930	67		
NOV. 1, 1930 - OCT. 31, 1931	69	1930	69
NOV. 1, 1931 - DEC. 31, 1931	70	1931	69
JAN. 1, 1932 -	70		


TREND OF PRICES OF STATION APPARATUS
JANUARY 1, 1926 = 100
INDEX NUMBERS
125
100
75
50
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932

PRIVATE BRANCH EXCHANGE INDICES

JANUARY 1, 1926 = 100

PERIOD	INDEX	ANNUAL AVERAGES	
		YEAR	INDEX
JAN. 1, 1913 - MAR. 31, 1914	60	1913	60
APR. 1, 1914 - DEC. 20, 1914	56		
DEC. 21, 1914 - NOV. 8, 1916	55	1914 1915	57 55
NOV. 9, 1916 - MAR. 7, 1917	56	1916	55
MAR. 8, 1917 - OCT. 31, 1919	70	1917 1918	67 70
NOV. 1, 1919 - APR. 9, 1920	82	1919	72
APR. 10, 1920 - MAY 31, 1920	84		
JUNE 1, 1920 - NOV. 30, 1921	97	1920 1921	91 97
DEC. 1, 1921 - AUG. 31, 1924	98	1922 1923	98 98
SEP. 1, 1924 - DEC. 31, 1925	96	1924 1925	97 96
JAN. 1, 1926 - JUNE 30, 1926	100		
JULY 1, 1926 - JULY 31, 1926	97		
AUG. 1, 1926 - AUG. 31, 1927	96	1926	98
SEP. 1, 1927 - DEC. 31, 1927	91	1927	94
JAN. 1, 1928 - MAR. 31, 1928	90		
APR. 1, 1928 - JULY 14, 1928	86		
JULY 15, 1928 - DEC. 31, 1928	85	1928	87
JAN. 1, 1929 - JAN. 31, 1929	83		
FEB. 1, 1929 - JUNE 30, 1929	81		
JULY 1, 1929 - DEC. 31, 1929	78	1929	80
JAN. 1, 1930 - AUG. 31, 1930	78		
SEP. 1, 1930 - OCT. 31, 1930	80		
NOV. 1, 1930 - DEC. 31, 1931	87	1930 1931	80 87
JAN. 1, 1932 -	87		

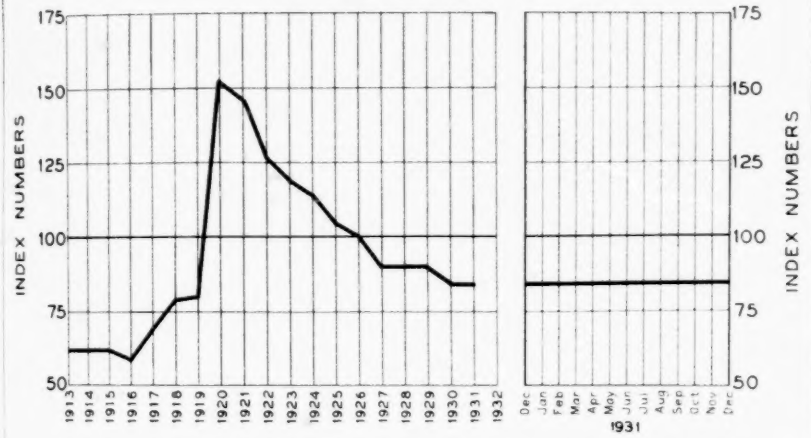

TREND OF PRICES OF P. B. X. SWITCHBOARDS
JANUARY 1, 1926 =100
INDEX NUMBERS
125
100
75
50
25
1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932

314V
130-27

INDICES 1926 = 100		
YEAR	TELEPHONE BOOTHS	TOOLS
1913	62	60
1914	62	60
1915	62	60
1916	59	63
1917	69	73
1918	79	92
1919	80	106
1920	152	121
1921	146	125
1922	127	109
1923	119	106
1924	114	108
1925	104	102
1926	100	100
1927	90	96
1928	90	90
1929	90	89
1930	84	86
1931	84	83
JANUARY	84	86
FEBRUARY	84	86
MARCH	84	86
APRIL	84	86
MAY	84	85
JUNE	84	81
JULY	84	81
AUGUST	84	81
SEPTEMBER	84	81
OCTOBER	84	81
NOVEMBER	84	81
DECEMBER	84	81

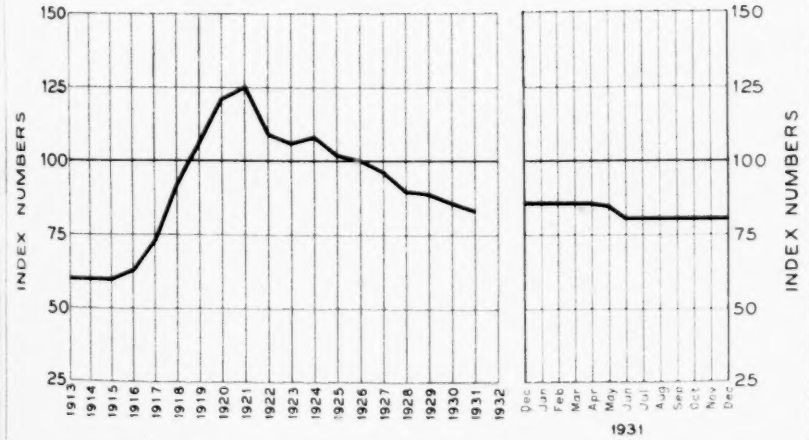
TREND OF PRICES OF TELEPHONE BOOTHS

1926 = 100



TREND OF PRICES OF TOOLS

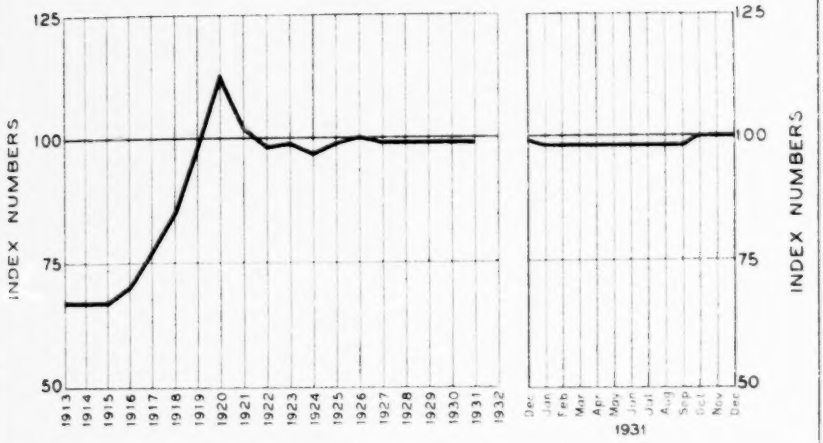
1926 = 100



INDICES 1926 = 100		
YEAR	FURNITURE AND FIXTURES	MOTOR VEHICLES
1913	67	105
1914	67	105
1915	67	104
1916	70	99
1917	77	96
1918	85	114
1919	98	121
1920	113	123
1921	102	109
1922	98	103
1923	99	105
1924	97	103
1925	99	97
1926	100	100
1927	99	98
1928	99	96
1929	99	95
1930	99	94
1931	99	94
JANUARY	98	94
FEBRUARY	98	94
MARCH	98	94
APRIL	98	94
MAY	98	94
JUNE	98	94
JULY	98	93
AUGUST	98	93
SEPTEMBER	98	93
OCTOBER	100	93
NOVEMBER	100	93
DECEMBER	100	93

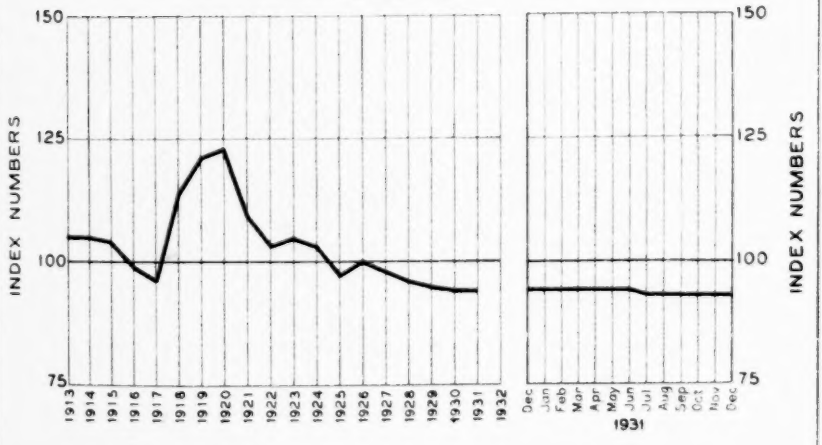
TREND OF PRICES OF FURNITURE AND FIXTURES

1926=100



TREND OF PRICES OF MOTOR VEHICLES

1926=100



[fol. 131] EXHIBIT B (E. V. Cox)

Indices Bringing Down to July 1, 1932, the Data Shown in the Price Trend Review Issued April 1, 1932

Material	Indices as of July 1, 1932
Creosoted Southern Pine Poles	57
Northern White Cedar Poles	100
Western Red Cedar Poles	88
Pole Line Hardware	79
Strand	82
Yellow Pine Crossarms	87
Douglas Fir Crossarms	110
Locust Pins	98
Copper	38
Lead	33
Lead Covered Cable	77
Bare Copper Wire	47
Inside Wire	53
Insulated Exchange Distributing Wire	64
Iron Wire	84
Glass Insulators	95
Creosoted Yellow Pine Conduit	78
Clay Conduit	82
Station Apparatus	70
Private Branch Exchange Switchboards	88
Booths	84
Tools	81
Furniture and Fixtures	97
Motor Vehicles	91

[fol. 132] EXHIBIT C (E. V. Cox)

Index Numbers for Manual Central Office Equipment

American Telephone and Telegraph Company, 195 Broadway, New York

September 24, 1929.

DEAR SIR: The series of index numbers for manual central office equipment which was sent with our letter of

April 18, 1928, has been brought down to January 1, 1929. These index numbers are given on the attached table which we are sending you for your information.

Yours truly, —— ——, Acting Plant Engineer.

Attached: Table of Index Numbers.
To all Chief Engineers.

[fol. 133] Exhibit C (E. V. Cox)

Index Numbers for Central Office Equipment (Including Cost of Equipment, Engineering, and Installation)

From	To	Type #1	Type #1-D	Types #9 & 10	Type #11
	1914	100	...	100	...
Jan. 1, 1915	Dec. 31, 1915	102	...	102	...
Jan. 1, 1916	Feb. 28, 1917	105	...	104	...
Mar. 1, 1917	Dec. 31, 1917	145	*	141	...
Jan. 1, 1918	Dec. 31, 1918	151	146	146	...
Jan. 1, 1919	Oct. 31, 1919	156	153	151	...
Nov. 1, 1919	Feb. 29, 1920	170	163	164	...
Mar. 1, 1920	May 31, 1920	177	169	171	...
June 1, 1920	Dec. 31, 1920	202	188	195	...
Jan. 1, 1921	Feb. 28, 1921	209	196	201	...
Mar. 1, 1921	Sept. 30, 1921	206	193	198	...
Oct. 1, 1921	Mar. 31, 1922	199	184	193	...
Apr. 1, 1922	Jul. 14, 1922	190	177	187	...
Jul. 15, 1922	Dec. 31, 1922	176	178	189	...
Jan. 1, 1923	Dec. 31, 1923	172	175	186	...
Jan. 1, 1924	June 30, 1924	178	184	195	...
July 1, 1924	Dec. 31, 1924	164	170	185	...
Jan. 1, 1925	June 30, 1925	160	166	177	...
Jul. 1, 1925	Dec. 31, 1925	159	163	169	*
Jan. 1, 1926	June 30, 1926	150	157	159	150
Jul. 1, 1926	Dec. 31, 1926	144	155	157	144
Jan. 1, 1927	Aug. 31, 1927	137	151	150	134
Sept. 1, 1927	Dec. 31, 1927	134	147	145	* 124
Jan. 1, 1928	Jan. 31, 1928	132	144	143	122
Feb. 1, 1928	Mar. 31, 1928	130	142	140	120
Apr. 1, 1928	Dec. 31, 1928	120	136	135	115
Jan. 1, 1929	.....	120	134	135	113

* Average cost of similar equipment in 1914 taken as 100.
Index numbers apply as of date of initial shipment of equipment from Hawthorne.

[fol. 133a] Exhibit D (E. V. Cox)

Index Numbers for Central Office Equipment

March 16, 1932.

Dear Sir: The enclosed table of index numbers of the cost of central office equipment installed brings down to

January 1, 1932, the table sent with our letter of July 17, 1931.

Yours truly, (Signed) W. H. Harrington, Plant Engineer.

Attached: Table of Index Numbers of the Cost of Central Office Equipment Installed.

To all Chief Engineers.

[fol. 133b] Exhibit D (E. V. Cox)

Index Numbers of The Cost of Central Office Equipment Installed

(Costs of January 1, 1926, Taken as 100)

	Manual equipment		Dial equipment	
	No. 1	No. 11	Panel	Step-by-step
1914	67	...	...	...
Jan. 1, 1915	68	...	...	...
Jan. 1, 1916	70	...	...	...
Mar. 1, 1917	97	...	...	...
Jan. 1, 1918	101	...	...	...
Jan. 1, 1919	104	...	...	...
Nov. 1, 1919	113	...	...	...
Mar. 1, 1920	118	...	...	...
June 1, 1920	135	...	...	...
Jan. 1, 1921	139	...	112	123
Mar. 1, 1921	137	...	...	...
Oct. 1, 1921	133	...	...	...
Jan. 1, 1922	133	...	112	118
Apr. 1, 1922	127	...	...	...
July 15, 1922	117	...	...	...
Jan. 1, 1923	115	...	112	118
Jan. 1, 1924	119	...	114	118
July 1, 1924	109	...	...	...
Jan. 1, 1925	107	...	103	103
July 1, 1925	106	...	...	...
Jan. 1, 1926	100	100	100	100
July 1, 1926	96	96	...	...
Jan. 1, 1927	91	93	95	97
Sept. 1, 1927	89	85	...	...
Jan. 1, 1928	88	84	91	87
Feb. 1, 1928	87	83	...	...
Apr. 1, 1928	80	79	...	...
Jan. 1, 1929	80	78	87	84
Jan. 1, 1930	76	75	83	76
Jan. 1, 1931	82	84	92	82
Jan. 1, 1932	86	86	94	84

NOTE.—Index numbers for manual equipment prior to 1929 are given for dates when price changes occurred. For dial equipment and for manual equipment for 1929 and later, the index numbers are for costs as of January 1, of each year.

Printed in U. S. A.

[fol. 134] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF EDWARD A. FRITZ

STATE OF WISCONSIN,
Milwaukee County, ss:

Edward A. Fritz, being duly sworn, on oath deposes and says:

I am the same Edward A. Fritz who made an affidavit herein verified the 27th day of July, 1932, and am General Auditor for the complainant. This supplementary affidavit has been prepared in order to set forth the complainant's investment in property as of a later date and the complainant's net operating income for a longer period in the year 1932 than was possible at the date of preparation of the said former affidavit and also to set forth in greater detail, than the time then permitted, matters therein discussed and to make certain corrections therein. I have read the supplementary affidavit of George F. Crowell in this suit, verified this day, and the exhibits thereto attached, as well as the affidavit of said George F. Crowell herein verified July 27, 1932.

From the books of account of the complainant I have determined the average investment of the complainant dur- [fol. 135] ing the first six months of the year 1932 in complainant's property used and useful for furnishing the exchange service covered by its exchange rates and also in complainant's property used and useful for furnishing its entire telephone service; from the said data and by detailed studies and computation, as hereinafter more particularly described, I have determined the complainant's average investment during the same period, used and useful for furnishing intrastate exchange service and entire intrastate telephone service, respectively. I have allocated the complainant's average investment of materials and supplies during said period, according to its books of account, and also its working capital taken at one per cent of the book value or investment in plant and equipment (which is approximately the same as the cash requirements for one month's operating expenses) to the said property grouped as above stated. I have added thereto, as going value, the proper allocable portion at ten per cent of the reproduction value new of plant and equipment, as of Jan-

uary 1, 1932, as determined by George F. Crowell, complainant's Chief Engineer, in fixing the fair value as of January 1, 1932 stated in his affidavit verified this day, being $7,536,676 for going value of all of the telephone property of the complainant and $5,558,449 for going value of the exchange property of the complainant.

Wherever I herein use or discuss complainant's average investment in plant and equipment during the first six months of 1932, the word "average" means the average of monthly averages determined by totaling the balance in the complainant's investment accounts on the first and last days of each month in the six months' period and dividing by twelve.

I have also determined from the books of account of the complainant, its net operating income for the first six months of the year 1932 for each of the classes of service hereinbefore stated, making due allocation thereof to the intrastate exchange service and the entire intrastate tele- [fol. 136] phone service, as more particularly described hereinafter, and have also determined what complainant's net operating income would have been from each of the said classes of telephone service at the rates provided by the order of the Public Service Commission of Wisconsin, decided June 30, 1932, if such rates had been in effect during the first six months of 1932.

From all of the said studies and computations, I have determined the following investments, net operating incomes and rates of return for the first six months of the year 1932 (in each case, "investment" includes allocable materials and supplies, as per books, working capital at 1%, and going value at 10% as aforesaid):

	On Basis of Investment	Return	
	Average investment in plants and equipment	At rates now in effect	At rates provided by said Order decided 6/30/32
Entire Telephone Service			
Entire telephone service intrastate and interstate:			
Investment	$84,292,841		
Net operating income		$1,226,494	$606,327
Rate of return (annual basis).		2.91%	1.44%
Entire intrastate telephone service:			
Investment	$76,584,685		
Net operating income		$1,169,886	$546,550
Rate of return (annual basis).		3.06%	1.43%

[fol. 137] On Basis of Investment

	Average investment in plants and equipment	Return: At rates now in effect	Return: At rates provided by said Order decided 6/30/32
Exchange Service			
All exchange service:			
Investment	$62,090,824		
Net operating income		$1,137,451	$500,198
Rate of return (annual basis).		3.66%	1.61%
Intrastate exchange service:			
Investment	$60,327,134		
Net operating income		$1,127,201	$490,553
Rate of return (annual basis).		3.74%	1.63%

I have also determined from the said studies and computations and from the said affidavits of George F. Crowell, the following fair values, net operating incomes and rates of return for the first six months of the year 1932:

Basis of Fair Value

	Average fair value of plants and equipment	Return: At rates now in effect	Return: At rates provided by said Order decided 6/30/32
Entire Telephone Service			
Entire service intrastate and interstate:			
Fair value	$78,604,828		
Net operating income		$1,226,494	$606,327
Rate of return (annual basis).		3.12%	1.54%

[fol. 138]

Entire intrastate service:			
Fair value	$71,381,459		
Net operating income		$1,169,886	$546,550
Rate of return (annual basis).		3.28%	1.53%
Exchange Service			
All exchange service:			
Fair value	$57,572,812		
Net operating income		$1,137,451	$500,198
Rate of return (annual basis).		3.95%	1.74%
Intrastate exchange service:			
Fair value	$55,957,759		
Net operating income		$1,127,201	$490,553
Rate of return (annual basis).		4.03%	1.75%

I have prepared the balance sheet as of June 30, 1932, hereto annexed, marked "Exhibit E. A. F. No. 1", and made a part of this affidavit, from the books of account of the complainant. I have also prepared from the said books the statement of revenues and expenses of the complainant for the six months ended June 30, 1932, hereto annexed, marked "Exhibit E. A. F. No. 2", and made a part of this affidavit.

The books of account of the complainant are and have been since January 1, 1913, kept in accordance with the accounting system and regulations prescribed by the Interstate Commerce Commission and approved from time to time by the Public Service Commission of Wisconsin, under its former name of Railroad Commission of Wisconsin. The accounts recorded on lines 1 to 8, inclusive, and line 18 on said balance sheet (Exhibit E. A. F. No. 1) and also appearing on the statement of plant and equipment attached to the affidavit of George F. Crowell, as Exhibit G. [fol. 139] F. C. No. 1, (being accounts numbered 207, 211, 212, 221, 222, 231 to 235, inclusive, 241 to 246, inclusive, 251 to 256, inclusive, 268, 270, 261 to 265, inclusive, and 122) are the accounts and the only accounts which have been taken, used and included in the determination of the complainant's average investment in plant and equipment, as herein set forth, except for the inclusion in said determination of working capital and going value, as hereinbefore stated. The total investment of the complainant as stated in the said balance sheet does not include any amount representing franchises or going value. In the determination of the complainant's average investment in property by me, going value has been included by specific additions to the book accounts as hereinbefore described. No franchise value whatever has been included.

Complainant's investment in plant and equipment and its revenues and expenses are segregated on its books between its exchange accounts and its toll accounts. The items going into complainant's toll accounts are all entered in a single series of accounts, designated as "toll" and comprehending the property, revenues and expenses for telephone communication between two different exchanges, beginning at the toll switchboard, designated as the "toll board", of each exchange, respectively, or at the toll division of the general switchboard in the exchanges where there is no separate toll board.

The items going into complainant's exchange accounts are classified under ninety-six sets of accounts, each embracing a telephone exchange and covering the accounting for service within each exchange, respectively, comprehending (a) exchange service on local calls, being telephone communication between two subscribers both within the exchange and using exclusively exchange facilities and (b)

exchange service on toll calls comprehending that portion of telephone communication between subscribers in differ-
[fol. 140] ent exchanges, which, in each exchange, involves the use of facilities and service between the subscriber's station and the toll board in that exchange. This toll portion of exchange service is herein and in the bill of complaint sometimes referred to as the "terminal or toll-board-to-subscriber-station service".

The terms "toll revenue", "toll expenses" and "toll plant and equipment" as commonly used by the complainant designate respectively the revenues derived, expenses incurred and plant and equipment used in rendering the telephone service from toll board to toll board between exchanges, and these are included in the complainant's "toll" accounts as aforesaid; and the terms "exchange revenue," "exchange expenses" and "exchange plants and equipment", as commonly used by the complainant, designate respectively the revenues derived, expenses incurred and plants and equipment used in rendering the telephone service designated as exchange service, comprehending (a) local telephone service and (b) the said toll terminal or toll-board-to-subscriber-station service on toll calls, and these are included in the complainant's "exchange" accounts as aforesaid; and the aforesaid terms, where not qualified or otherwise designated, are so used in this affidavit.

The accounts of the complainant, in accordance with the system of regulations prescribed by the Interstate Commerce Commission as aforesaid, do not separate the portion of the complainant's investment used in its total service between intrastate and interstate and do not separate the revenues and expenses relating to intrastate and interstate service. Said complainant's accounts do not record the aggregate interstate toll revenues separately. I have ascertained the amount of interstate toll revenues by analyzing the details of the entries on the books under the account of "Toll Revenues," which includes both intrastate and interstate toll revenues. Said accounts also do not record separately interstate exchange service, and the accounts for "Exchange Revenue" include both exchange in-
[fol. 141] trastate and interstate revenues, except in the Hurley exchange, which is entirely interstate. Complainant's intrastate service is all in the State of Wisconsin.

In order to determine the amount of said plant and equipment used in intrastate exchange service and in the entire intrastate telephone service of the complainant and also the amount of revenues and expenses (and the resulting net operating income) relating to said services, I have made apportionments for the first six months of the year 1932 according to the following method:

1. In order to determine the amount of the complainant's investment in plant and equipment which was devoted in said period to its entire intrastate service, I have deducted from the average of complainant's entire plant and equipment for said period the following:

(a) That portion of complainant's average toll plant and equipment for said period (as segregated upon its books of account and exclusive of Hurley, which is entirely interstate, and the portion of complainant's toll plant leased for interstate use) which is equal to the proportionate use of said plant and equipment in connection with interstate toll message traffic. Said determination of such proportionate use of said plant and equipment is based upon the determination of the proportionate use of each class thereof made by Fred E. Chandler, complainant's General Traffic Superintendent, and set forth in his affidavit in this suit verified this day.

(b) Complainant's average exchange plant at Hurley and that portion of complainant's average exchange plant and equipment at Beloit and Hudson, Wisconsin, (as segregated upon its books of account) which relates to complainant's interstate exchange service for said period, and the portion of complainant's exchange plant leased for interstate use. Complainant's exchange service at Hurley is entirely interstate. Complainant's only other local interstate exchange service is rendered at the said cities of Beloit and Hudson to a comparatively small number of subscribers in Illinois and Minnesota and said exchange [fol. 142] plants and equipment have been allocated in proportion to the use of complainant's exchange in furnishing local service to the subscribers in those two states in relation to the use of complainant's said exchanges for all local service in said period.

(c) That proportion of complainant's total average investment in exchange plants and equipment (as segregated

on its books of account) except Hurley (which is entirely interstate) and excepting the interstate portion of complainant's Beloit and Hudson exchange and the portion of complainant's exchange plants leased for interstate use for said period devoted to the terminal or toll-board-to-subscriber-station service on interstate toll calls. The total amount of said exchange plants and equipment used for terminal or toll-board-to-subscriber-station service on all toll calls (including intrastate and interstate toll calls) has been taken at the percentage of 9.374% (being the relationship which the amount allocated to toll service by said Commission (at page 87 of the said Order—Exhibit B of the bill of complaint herein) of complainant's 1931 investment in exchange plants and equipment bears to its total 1931 investment in said plants and equipment), and this amount has been apportioned between interstate and intrastate toll service in proportion to the use of said plant and equipment in connection with interstate toll message traffic. Said determination of such proportionate use of said plant and equipment is based upon the determination made by Fred E. Chandler and set forth in his affidavit hereinbefore referred to. I am of the opinion that the amount and percentage of complainant's exchange plants and equipment found by said Commission as aforesaid to be devoted to toll use in 1931 is erroneously high and results from erroneous methods of allocation and that the error in said allocation is further increased by my use of the same percentage in 1932, since it is the fact that the use of complainant's toll service has declined to a greater extent in 1932 than the use of complainant's exchange service, as compared to the uses in 1931, respectively. These errors have resulted in my allocating to complainant's intrastate business a smaller amount of plant and equipment, [fol. 143] and produce a higher percentage of return thereon than would be the case by the use of correct methods.

2. In order to determine the amount of the complainant's investment in plant and equipment which was devoted in said period to intrastate exchange service, I have deducted from complainant's average exchange plants and equipment for said period the amounts hereinbefore stated under (b) and (c) of subdivision number 1 above, consisting of the complainant's exchange plants at Hurley, and the inter-

state portion of complainant's exchange plants and equipment at Beloit and Hudson and the portion of complainant's exchange plant leased for interstate use and the amount of exchange plants and equipment, (exclusive of Hurley, and said interstate portion of said Beloit and Hudson exchanges and the portion of complainant's exchange plants leased for interstate use) allocable to the terminal or toll-board-to-subscriber-station service on interstate toll calls.

3. In order to determine the fair value of complainant's plant and equipment allocable to its entire intrastate service and its intrastate exchange service, respectively, I have determined the proportionate use of each class of such plant and equipment for interstate service based upon the said determination made by said Fred E. Chandler and set forth in his affidavit hereinbefore referred to, and I have applied the percentage representing such proportionate use to the average fair value for said period of complainant's plant and equipment and its exchange plant and equipment, respectively, as determined by George F. Crowell, complainant's Chief Engineer, and stated by him in his affidavit in this suit verified this day.

4. The computation of the amount of the investment in and the fair value of complainant's plant and equipment allocable to its total intrastate service and its intrastate exchange service, as above described, are set forth in detail in "Exhibit E. A. F. No. 3", hereto attached and made a part of this affidavit.

5. I have determined the amount of operating revenue derived by the complainant for said period from its entire intrastate service by deducting from complainant's total operating revenue the following:

[fol. 144] (a) The amount of complainant's interstate toll revenue and the revenue from the portion of complainant's toll plant leased for interstate use as determined from an analysis of the entries in the Toll Revenue accounts in its books of account for said period.

(b) The entire revenue from the Hurley exchange which is all interstate and the interstate exchange revenues (from Illinois and Minnesota subscribers) at Beloit and Hudson,

Wisconsin, and the revenue from the portion of complainant's exchange plant leased for interstate use, as determined from an analysis of the entries in the Exchange Revenue accounts in its books of account.

(c) That proportion of complainant's exchange revenues (exclusive of Hurley, and the interstate portion of Beloit and Hudson exchanges and the portion of complainant's exchange plants leased for interstate use) for said period which is allocable to complainant's interstate service constituting the terminal or toll-board-to-subscriber-station service on interstate toll calls. The said amount was determined by first determining the amount of exchange expense assignable to such service as hereinafter described in subdivision numbered 7 (c) below. The percentage relationship of total toll revenue to total toll operating expenses in said period was 105.02% and the application of this percentage to the exchange expense (exclusively of Hurley and the interstate portion of Beloit and Hudson exchanges and the portion of complainant's exchange plants leased for interstate use) assignable to interstate toll service was used to determine the revenue from the said interstate toll use of exchange plants. The use of this percentage allocates to revenue for toll service a smaller amount than would result from an allocation based on the relation of exchange revenue to exchange expenses or to exchange property.

(d) In all cases I have determined revenue by deducting from gross revenue the payments under the license contracts to the American Telephone & Telegraph Company which are directly proportional to gross revenue and are a deduction from gross revenue under the accounting sys- [fol. 145] tem prescribed by the Interstate Commerce Commission.

6. I have determined the amount of operating revenue derived from intrastate exchange service by deducting from the total exchange operating revenue of the complainant, according to its books, for said period the following:

(a) The exchange revenue at the Hurley exchange, which is all interstate, and the interstate exchange revenue at Beloit and Hudson exchanges and the exchange revenues from the portion of exchange plant leased for interstate

use, determined as described above under subdivision numbered 5 (b).

(b) The exchange revenue, from the terminal or toll-board-to-subscriber-station service on interstate toll calls determined as described above under subdivision 5 (c).

7. I have determined the amount of operating expenses of the complainant for said period allocable to its entire intrastate service by deducting from the total operating expenses of the complainant for said period (including uncollectible revenue and amortization charges) the following:

(a) Toll expenses at Hurley and expenses in connection with toll plant leased for interstate service; and that part of the total toll operating expenses, exclusive of Hurley and the expenses in connection with toll plant leased for interstate use, which is attributable to the use of the toll plant and facilities in interstate toll message traffic (considering in each instance the toll service from toll board to toll board). Such part was determined from the proportionate utilization of each class of operating expenses for such interstate service as determined by said Fred E. Chandler, said complainant's General Traffic Superintendent, and set forth in his affidavit hereinbefore referred to.

(b) The operating expenses at the Hurley exchange, which is all interstate, the operating expenses in connection with exchange plant leased for interstate use, and that pro-[fol. 146] portion of the operating expenses at the Beloit and Hudson exchanges which is attributable to service to subscribers in those exchanges in Illinois and Minnesota, respectively.

(c) That proportion of exchange expenses (other than at Hurley which is entirely interstate, the interstate portion of Beloit and Hudson exchange expenses and the expenses in connection with exchange plant leased for interstate use) assignable to complainant's interstate service constituting terminal or toll-board-to-subscriber-station service on interstate toll calls. To determine this, I first determined the proportion of exchange expense assigned to toll terminal service for the year 1931 by the said Commission at page 91 of its said Order (Exhibit B to the Bill of Com-

plaint herein) covering maintenance, depreciation, traffic, general and miscellaneous expenses. I have used the percentage relationship to determine the amount of exchange expenses of each class in the first six months of 1932 allocable to all toll terminal services, other than at Hurley; and from said determination I have further determined the part of said expenses attributable to interstate toll message traffic on the basis of the proportional utilization of each class of operating expenses for such interstate service, as determined by said Fred E. Chandler, and set forth in his affidavit hereinbefore referred to. I consider the amount of exchange expenses assigned to toll for the year 1931 by the Commission to be excessive and based upon erroneous methods. The said error is increased in applying the same percentage to the said period in 1932 since, as the fact is, the use of toll service has decreased in 1932 to a greater extent than the use of exchange service as compared to 1931. These errors result in a higher amount of expenses allocable to interstate operations and to a higher net operating income from intrastate service than would be the case were correct methods used.

8. I have determined the amount of operating expenses of the complainant for said period allocable to intrastate exchange service by deducting from the total exchange operating expenses of the complainant for said period (in- [fol. 147] cluding uncollectible revenue and amortization charges) the following:

(a) The amount of the Hurley exchange operating expenses, the expenses in connection with exchange plant leased for interstate use, and the amount of interstate exchange expenses at the Beloit and Hudson exchanges determined as described above in subdivision 7 (b).

(b) The amount of exchange expenses assigned to interstate toll terminal charges as described above under subdivision 7 (c).

9. I have determined the net operating income from the entire intrastate service of the complainant by deducting from the operating revenue from such service as determined in subdivision 5 above the amount of operating expenses allocable to such services as determined in subdivision 7 above. I have similarly determined the net operat-

ing income from intrastate exchange service of the complainant by deducting from the operating revenue from such service as determined in subdivision 6 above, the allocable expenses for such services as determined in subdivision 8 above.

10. I have determined what the net operating income would have been in said period from complainant's entire intrastate service and from its intrastate exchange service, if the rates prescribed by the Order of said Commission (Exhibit B of the Bill of Complaint herein) had been in effect during said period, by deducting from the net operating income for each class of service, determined as in subdivision numbered 9 above, the amount which the corresponding operating revenues would have been reduced in said period by the application of the said rates and have increased the same by adding to the result the amount by which the complainant's expenses for taxes and payments under license contract would have been reduced as a result of the said reduction in revenue.

11. Detailed computation setting forth the determination of revenue, expenses, net operating income under existing rates and net operating income under the rates prescribed in the said Order for complainant's entire intrastate serv-
[fol. 148] ice and intrastate exchange service, respectively, are set forth in "Exhibit E. A. F. No. 4", "Exhibit E. A. F. No. 5", and "Exhibit E. A. F. No. 6", respectively hereto attached and made a part of this affidavit.

In the affidavit made by me and verified July 27, 1932, I stated complainant's average investment in plant and equipment allocable to its exchange service, its entire service, its intrastate exchange service and its entire intrastate service for the years 1931 and for the first five months of 1932. In determining the amounts therein stated, I used substantially the same methods hereinbefore described for determining the corresponding facts relative to the first six months of 1932, except that studies, which have been made possible by the greater amount of time which has been available to me in preparing this supplementary affidavit, have shown an error in arriving at the amount set forth in the said previous affidavit in connection with the allocation of plant, revenues and expenses to intrastate service, and except that, by

misunderstanding, the Hurley exchange and the portions of plant leased for interstate use were not classified as interstate. The net effect of the said error was slightly to overstate the intrastate net operating income as related to the investment in or fair value of the property allocable to intrastate service, amounting to a difference in the rate of return on complainant's entire intrastate service for 1931 and the first five months of 1932 in relation to complainant's investment in and the fair value of its property by not exceeding 16/100ths of 1% in any instance and to understate the net return for said period on complainant's investment in and fair value of its intrastate exchange property by not exceeding 4/100ths of 1% and to overstate the return for the said period at rates provided by the order of the Commission decided June 30, 1932, by not exceeding 3/100ths of 1% in any instance. I have prepared a correction statement, setting forth complainant's investment in, [fol. 149] and the fair value of property used and useful in complainant's entire intrastate service and intrastate exchange service and complainant's net operating income under the existing rates and under the rates prescribed by said Commission's Order for said services, respectively, showing the amounts stated in said previous affidavit and the corrected amounts for the year 1931. In said correction statement I also have embodied the change of the fair and reasonable value of the complainant's entire property and the complainant's exchange property for the year 1931 set forth in said affidavit of George F. Crowell verified this day. This correction statement is set forth as "Exhibit E. A. F. No. 7" hereto attached and made a part of this affidavit. Inasmuch as the amount stated in said previous affidavit for the first five months of the year 1932 has been superseded by amounts later available for six months of 1932, as hereinbefore stated, detailed correction of these amounts has not been herein presented, but the correction would be in approximately the same proportion as the correction for 1931.

The depreciation reserve of the complainant is maintained and its depreciation accounts are kept in accordance with the accounting system prescribed by the Interstate Commerce Commission. There is attached hereto and marked "Exhibit E. A. F. No. 8" and made a part of this

affidavit a photostatic copy of the instructions of the Interstate Commerce Commission effective on January 1, 1913, covering the accounting treatment of depreciation by telephone companies. The depreciation reserve of the complainant is a single aggregate reserve covering the entire depreciable plant. There is no requirement in the system of accounts that the depreciation reserve be maintained separately by classes of plant.

Pursuant to paragraph 24 on page 68 of said accounting system of the Interstate Commerce Commission which is shown as sheet 3 of Exhibit E. A. F. No. 8 hereto attached, complainant includes in its charges for depreciation of plant [fol. 150] and equipment provision for all ordinary casualties excepting that complainant carries partial insurance coverage against fire by policies in commercial fire insurance companies, the remainder of the fire insurance hazard being included like other casualties in the provision for depreciation reserve.

The depreciation rates used by the complainant upon its books in determining the amount to be added to its depreciation reserve for the year 1931 comprised thirty separate rates, each on a single class of property. The composite of these rates, i. e., the ratio which the total depreciation expenses of the complainant for the year bears to the total of its investment in the thirty classes of property which are thus depreciated, was 4.48%. For the year 1929, the complainant's depreciation was also based upon thirty separate rates, in some instances slightly more and in some instances slightly less than the corresponding rates used in 1931. The composite of the said rates in 1929 was 4.54%. Auditors of the Bureau of Internal Revenue of the United States Treasury Department have examined the complainant's books for the year 1929 and for all earlier years in connection with its federal income taxes. As yet, no such examination has been made for any subsequent year. The amount of depreciation deducted in each year on the federal tax return of the complainant was the same as the amount of depreciation entered upon its books, except for the amount of depreciation computed on the account entitled "Interest during Construction" which covers an item not deductible for tax purposes. In each of the said examinations by the said auditors, the depreciation deduc-

tion, as claimed by the complainant for federal tax purposes, has been approved and allowed without any question thereon being raised.

In my said affidavit, verified July 27, 1932, I described the accounting methods of the complainant with reference to its expenses on account of its pension and relief funds and on account of its so-called "license contract" with [fol. 151] American Telephone & Telegraph Company and stated that these methods, as prescribed by the Interstate Commerce Commission, required the charging of expenses of this character to certain specified expense accounts. There is attached hereto and marked "Exhibit E. A. F. No. 9" and made a part of this affidavit, a photostatic copy of the instructions of the Interstate Commerce Commission under date of December 19, 1927, covering the accounting treatment required on account of pension and relief funds, as described in my said preceding affidavit. There is also attached hereto and marked "Exhibit E. A. F. No. 10" and made a part of this affidavit, a photostatic copy of a page contained in the Uniform System of Accounts for Telephone Companies, as Prescribed by the Interstate Commerce Commission, first issue effective January 1, 1913, which is still in full force and effect and on which appears the prescribed instructions for charging the expenditures under the so-called "license contract" to an account entitled "No. 527 Licensee Revenue Debit". This treatment is as described by me in my said preceding affidavit. In the said affidavit, I described the said account as an "expense account". In strict accuracy, the account is to be described as a deduction from gross revenue rather than as one of the expense accounts, but the accounting effect in determining net operating income is the same as if it were an expense account. As stated in my said preceding affidavit, effective on January 1, 1933, the Interstate Commerce Commission has tentatively prescribed that such expenditures shall be charged to a new account, which is accurately described as an expense account.

There is kept under my supervision a set of records, commonly called plant measurement records, in which are recorded in great detail the constituent elements of complainant's outside plant, consisting of pole line, ærial cable and wire, underground conduits and cable, and submarine

cable separately as to exchange plants and toll plants. [fol. 152] These records have been built up over a long period of years by additions for each addition in complainant's plant and by subtraction for each retirement from complainant's plant and said records parallel the financial records in complainant's books of account. These plant records are used in the current operation of complainant's business and are thus subject to continual check. They are an accurate and reliable record of the quantities of said classes of property which are currently in complainant's plant.

(Signed) Edward A. Fritz.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires December 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 153] EXHIBIT E. A. F. #1

Wisconsin Telephone Company

Balance Sheet, June 30, 1932

Line No.	Assets:	
1	Right of Way (Account 207)	$534,318.05
2	Land and Buildings (211, 212)	8,581,268.92
3	Central Office Equipment (221, 222)	17,540,824.10
4	Station Equipment (231 to 235)	8,816,627.53
5	Exchange Lines (241 to 246)	25,907,606.92
6	Toll Lines (251 to 256)	12,871,584.74
7	Other Plant (268, 270)	747,504.80
8	General Equipment (261 to 265)	1,461,302.59
9	Total Fixed Capital	76,461,037.65
10	Construction Work in Progress (104)	1,514,356.70
11	Investment Securities (106 to 109)	93,966.96
12	Miscellaneous Investments (111)	90,779.89
13	Total permanent and long term investments	$78,160,141.20
14	Cash and Deposits (113, 114)	169,715.51
15	Marketable Securities (116)	6,194.60
16	Bills Receivable (117)	74,505.74
17	Accounts Receivable (115, 118 to 121)	1,548,993.63
18	Materials and Supplies (122)	436,813.14
19	Total working assets	$2,236,222.62
20	Accrued income not due (124)	1,764.51
21	Prepayments (129 to 133)	68,092.41
22	Other Deferred Debits (136)	58,092.69
23	Total deferred debit items	126,185.10
	Total assets	$80,524,313.43

Line No.	Liabilities:	
24	Capital Stock—Common (Account 150-01)	$40,000,000.00
25	Capital Stock—Preferred (150-02)	4,947,000.00
26	Total capital stock	44,947,000.00
27	Premiums on capital stock (152)	587.96
28	Funded Debt (153)	25,000.00
29	Advances from System Corporations for Construction, etc. (155)	4,575,000.00
30	Total long term debt	4,600,000.00
31	Bills Payable (157)	2,206,104.87
32	Accounts Payable (158 to 165)	1,538,323.30
33	Total working liabilities	3,744,428.17
34	Accrued liabilities not due (166, 167)	1,834,804.44
35	Liability on Account of Provident Funds (170-02)	31,000.00
36	Other Deferred Credit Items (170-A)	29,611.27
37	Total deferred credit items	60,611.27
38	Reserve for Accrued Depreciation (102)	17,139,879.76
39	Reserve for Amortization of Intangible Capital (103)	147,816.37
40	Total fixed capital reserves	17,287,696.13
41	Corporate Surplus Unappropriated (174)	8,049,185.46
42	Total surplus and undivided profits	8,049,185.46
	Total liabilities	$80,524,313.43

Figures in parenthesis are account numbers prescribed in Interstate Commerce Commission System of Accounts dated January 1, 1913.

[fol. 154] EXHIBIT E. A. F. #2

Wisconsin Telephone Company

Income Statement, 6 Months Ended June 30, 1932

	Total	Exchange	Toll
Operating Revenues:			
Telephone	$8,212,098	$6,361,901	$1,850,197
Miscellaneous	242,419	203,466	38,953
Total	$8,454,517	$6,565,367	$1,889,150
Operating Expenses:			
Maintenance	$1,678,432	$1,419,859	$258,573
Depreciation	1,622,593	1,131,776	490,817
Traffic	1,676,376	1,212,268	464,108
Commercial	768,966	577,413	191,553
Relief Department and Pensions	197,597	154,691	42,906
General and Miscellaneous	248,671	195,764	52,907
License Contract Payment*	120,795	94,970	25,825
Total	$6,313,430	$4,786,741	$1,526,689

	Total	Exchange	Toll
Taxes	741,529	535,710	205,819
Uncollectible Revenues	83,983	63,620	20,363
Uncollectible Revenue Adjustment	17,622	13,349	4,273
Rent Deductions	61,872	18,908	42,964
Amortization of Intangible Capital	9,588	9,588	.....
Total	$7,228,024	$5,427,916	$1,800,108
Net Operating Income	$1,226,493	$1,137,451	$89,042
Non-operating Revenues:			
Miscellaneous Rent Revenues	$1,631		
Dividend Revenues	851		
Interest Revenues	49,502		
Miscellaneous	959		
Total	$52,943		
Non-operating Expenses:			
Rent Expense	$2,226		
Non-operating Taxes	1,404		
Uncollectible Non-operating Revenue	.....		
Total	$3,630		
Net Non-operating Income	$49,313		
Gross Income	$1,275,806		

Form of statement follows that on page 6 of Commission's Order of June 30, 1932.

* License contract payment is here classified as expense following the Commission's statement. Under the classification of the Interstate Commerce Commission it is a deduction from gross revenue and is so treated in the following exhibits.

[fol. 155] EXHIBIT E. A. F. #3, PAGE 1

Wisconsin Telephone Company

Computation of Investment and Fair Value Allocable to Total Intrastate Service and Exchange Intrastate Service, 6 Months, 1932

Investment	Entire company	Exchange	Toll
1. Total average plant and equipment	$75,628,109	$55,701,541	$19,926,568
Interstate average plant and equipment:			
2. Interstate plant, Hurley	46,929	46,929	.....
3. Interstate exchange plant, Beloit and Hudson (A)	39,346	39,346	.....
4. Exchange and toll plant and equipment leased for interstate business (B)	1,326,733	167,399	1,159,334
5. Interstate toll plant exclusive of Hurley and leased toll plant (C).	4,175,893	.....	4,175,893
6. Exchange plant (exclusive of (a) Hurley, (b) interstate plant at Beloit and Hudson, (c) leased exchange plant) assignable to interstate toll (D)	1,328,528	1,328,528	.....
7. Total average interstate plant	$6,917,429	$1,582,202	$5,335,227
8. Intrastate average plant and equipment	$68,710,680	$54,119,339	$14,591,341

(A)	Average plant and equipment	Per cent of stations outside of Wisconsin to total stations	Computed average interstate plant and equipment
Beloit.....	$680,521	5.449%	$37,082
Hudson.....	76,880	2.945%	2,264
			$39,346

(B) Average exchange and toll plant and equipment leased for interstate business determined from a special study.
(C) See page 2.
(D) See page 2.

(C) Average Toll Plant and Equipment, Exclusive of Hurley and Leased Toll Plant, is Apportioned Between Interstate and Intrastate on the Basis of Use of Plant for the Respective Services

Title	Total	Hurley and leased plant	Total exclusive of Hurley and leased plant	Interstate	Intrastate
Right of Way (1)	$288,928	$22,356	$266,572	$55,074	$211,498
Land and Buildings (2)	1,333,837	241,987	1,091,850	279,077	812,773
Central Office Equipment (2)	5,101,583	220,956	4,880,627	1,247,489	3,633,138
Station Equipment (3)	73,190	.....	73,190	17,366	55,824
Toll Lines (1)	12,862,396	674,035	12,188,361	2,518,115	9,670,246
Other Plant (4)	229,530	.....	229,530	51,073	178,457
Office Furniture and Fixtures (2)	698	.....	698	178	520
Other General Equipment (1)	36,406	.....	36,406	7,521	28,885
Total	$19,926,568	$1,159,334	$18,767,234	$4,175,893	$14,591,341

(1) Apportioned to interstate plant on the basis of Weighted Message Miles 20.66%
(2) Apportioned to interstate plant on the basis of Equipment Weighted Messages 25.56%
(3) Apportioned to interstate plant on the basis of Subscribers Weighted Messages 23.76%
(4) Apportioned to interstate plant on the same percentage as the composite of other property. 22.251%

(D) Average exchange plant and equipment 1931	$53,515,430
Assigned to toll use by Commission (page 87 of Order)	5,016,296
Per cent assigned to toll	9.374%
Average exchange plant and equipment, 6 months 1932, exclusive of (a) Hurley, (b) interstate plant at Beloit and Hudson, (c) leased exchange plant	$55,447,867
Computed average investment assignable to toll (9.374%)	5,197,683
Apportioned to interstate plant on the basis of use of plant (Equipment Weighted Messages)	25.56%
Computed average exchange plant (exclusive of (a) Hurley, (b) interstate plant at Beloit and Hudson, (c) leased exchange plant) assignable to interstate toll (25.56% of $5,197,683)	$1,328,528

[fol. 155b] Exhibit E. A. F. #3, Page 3

Investment	Entire company	Exchange	Toll
1. Total average plant and equipment (A)	$75,628,109	$55,701,541	$19,926,568
2. Intrastate average plant and equipment (A)	68,710,680	54,119,339	14,591,341
3. Total average materials and supplies (B)	371,775	273,819	97,956
4. Total average working capital (C)	756,281	557,015	199,266
5. Total average going value (D)	7,536,676	5,558,449	1,978,227
6. Total	8,664,732	6,389,283	2,275,449
7. Intrastate average materials and supplies (E)	337,770	266,041	71,729
8. Intrastate average working capital (E)	687,107	541,193	145,914
9. Intrastate average going value (E)	6,849,128	5,400,561	1,448,567
10. Total	7,874,005	6,207,795	1,666,210
11. Total average plant and equipment including materials and supplies, working capital, and going value (line 1 plus line 6)	84,292,841	62,090,824	22,202,017
12. Intrastate average plant and equipment including material and supplies, working capital, and going value (line 2 plus line 10)	76,584,685	60,327,134	16,257,551
Fair Value:			
13. Total average fair value (per C. F. Crowell, Chief Engineer)	78,604,828	57,572,812	21,032,016
14. Assignable to intrastate (F)	71,381,459	55,957,759	15,423,700

(A) From page 1.
(B) Divided between exchange and toll in the ratio of average plant and equipment.
(C) 1 Per cent of average plant and equipment.
(D) 10 per cent of reproduction value of plant and equipment as of December 31, 1931.
(E) Same percentages of total (exchange and toll) as intrastate average plant and equipment (exchange and toll) is of total.
(F) Computed as shown on pages 4 and 5.

[fol. 155c] Exhibit E. A. F. #3, Page 4

(F) Intrastate Toll Average Fair Value

Title	Total average investment	Total average fair value	Intrastate average investment*	Computed intrastate toll average fair value #
Right of Way	$288,928	$287,797	$211,498	$210,670
Land	81,357	95,786	45,184	53,198
Buildings	1,252,480	966,949	767,589	592,599
Central Office Telephone Equipment	5,053,760	4,581,323	3,597,539	3,261,234
Other Central Office Equipment	47,823	47,016	35,599	34,998
Station Equipment	73,190	66,437	55,824	50,673
Pole Lines	5,671,843	6,055,363	4,152,170	4,432,931
Aerial Cable	1,492,797	1,250,673	1,145,581	959,773
Aerial Wire	3,476,991	2,477,318	2,668,250	1,901,099
Underground Conduit	609,942	495,570	468,065	380,297
Underground Cable	1,565,229	1,283,676	1,201,168	985,102
Submarine Cable	45,594	41,786	35,012	32,088
Interest during Construction	229,530	1,060,811	178,457	824,769
Office Furniture and Fixtures	698	556	520	414
General Store Equipment	142	128	113	102
General Stable and Garage Equipment	21,618	17,295	17,152	13,722
General Tools and Implements	14,646	12,495	11,629	9,913
Total	$19,926,568	$18,740,979	$14,591,341	$13,743,582
Materials and Supplies, Working Capital, and Going Value	.....	2,291,037	.....	1,680,118
Total		$21,032,016		$15,423,700

* Intrastate investment consists of total investment less (a) plant leased for interstate business, (b) other toll plant assigned to interstate.

Same ratio to intrastate investment on each item as the fair value thereon is to the investment therein.

(Continued on page 5)

[fol. 155d] Exhibit E. A. F. #3, Page 5

Intrastate Exchange Average Fair Value

(F, continued)

Title	Total average investment	Total average fair value	Intrastate average investment*	Computed intrastate exchange average fair value #
Right of Way	$234,223	$233,216	$228,288	$227,297
Land	986,256	970,573	945,733	930,694
Buildings	6,160,930	4,917,575	5,931,572	4,734,504
Central Office Telephone Equipment	11,486,862	9,866,757	11,142,193	9,570,698
Other Central Office Equipment	325,550	317,420	317,463	309,535
Station Equipment	8,762,425	7,318,080	8,536,748	7,129,602
Pole Lines	3,483,225	4,410,697	3,388,452	4,290,688
Aerial Cable	4,812,974	3,385,962	4,674,365	3,288,448
Aerial Wire	3,024,170	1,687,347	2,938,668	1,639,642

Title	Total average investment	Total average fair value	Intrastate average investment*	Computed intrastate exchange average fair value $
Underground Conduit	7,071,201	7,971,960	6,893,444	7,771,558
Underground Cable	7,216,692	5,791,665	7,037,198	5,647,612
Submarine Cable	146,161	129,864	142,622	126,720
Interest during construction	481,266	2,896,436	469,551	2,825,931
Other Plant	12,339	11,190	12,043	10,922
Office Furniture and Fixtures	521,223	468,806	508,610	457,462
General Store Equipment	9,621	8,878	9,375	8,651
General Stable and Garage Equipment	555,292	434,815	541,828	424,272
General Tools and Implements	411,131	349,143	401,186	340,698
Total	$55,701,541	$51,170,384	$54,119,339	$49,734,934
Materials and Supplies, working capital, and going value		6,402,428		6,222,825
Total		$57,572,812		$55,957,759

* Intrastate investment consists of total investment less (a) plant at Hurley, (b) interstate plant at Beloit and Hudson, (c) exchange plant leased for interstate business, (d) exchange plant assigned to interstate.

$ Same ratio to intrastate investment on each item as the fair value thereon is to total investment therein.

[fol. 156] Exhibit E. A. F. #4

Wisconsin Telephone Company

Computations Setting Forth the Determination of Revenues from Entire Intrastate Service and Intrastate Exchange Service, 6 Months, 1932

	Entire company	Exchange	Toll
1. Total operating revenue	$8 [illegible]3.723	$6,470,397	$1,863,326
Interstate operating revenue:			
2. Interstate revenue, Hurley	9,388	7,726	1,662
3. Interstate exchange revenue, Beloit and Hudson (A)	6,125	6,125	
4. Revenue from exchange and toll plant and equipment leased for interstate business (B)	113,913	12,153	101,760
5. Interstate toll revenue exclusive of Hurley and leased toll plant (C).	388,724		388,724
6. Exchange revenue (exclusive of (a) Hurley, (b) interstate revenue at Beloit and Hudson, (c) revenue from leased exchange plant) assignable to interstate toll (D)	56,535	56,535	
7. Total interstate revenue	$574,685	$82,539	$492.16
8. Total intrastate operating revenue	$7,759,038	$6,387,858	$1,371,180

(A)	Operating revenue	Interstate revenue to total revenue	Computed interstate operating revenue
Beloit	$88,970	6.50%	$5,783
Hudson	12,330	2.77	342
			$6,125

(B) Operating revenue from exchange and toll plant and equipment leased for interstate business is developed from the books through a special study.

(C) Total interstate toll operating revenue, exclusive of Hurley and revenue from toll plant leased, (company's prorata share of and commission on interstate message tolls) is developed from the books through a special study.

(D) Computed exchange expenses (exclusive of (a) Hurley, (b) interstate expenses at Beloit and Hudson, (c) expenses for leased exchange plant) assigned to interstate toll (see Exhibit E. A. F. #5, Page 3, Note D), $53,833.

Toll operating revenue ($1,863,326) to toll operating expenses ($1,774,283), 105.02%.

Computed exchange revenue (exclusive of (a) Hurley, (b) interstate revenue at Beloit and Hudson, (c) revenue from leased exchange plant) assignable to interstate toll (105.02% of $53,833), $56,535.

[fol. 157] EXHIBIT E. A. F. #5, PAGE 1

Wisconsin Telephone Company

Computations Setting Forth the Determination of Expenses for Entire Intrastate Service and Intrastate Exchange Service, 6 Months, 1932

	Entire company	Exchange	Toll
1. Total operating expenses	$7,080,019	$5,310,009	$1,770,010
2. "Uncollectible Revenues Adjustment"	17,622	13,349	4,273
3. "Amortization of Intangible Capital"	9,588	9,588	.....
4. Total adjusted operating expenses	$7,107,229	$5,332,946	$1,774,283
Interstate operating expenses:			
5. Interstate expenses, Hurley	7,151	6,196	955
6. Interstate exchange expenses, Beloit and Hudson (A)	3,946	3,946	.....
7. Expenses in connection with exchange and toll plant leased for interstate business (B)	76,164	8,314	67,850
8. Interstate toll expenses, exclusive of Hurley and expenses for leased toll plant (C)	376,983	.....	376,983
9. Exchange expenses (exclusive of (a) Hurley, (b) interstate expenses at Beloit and Hudson, (c) expenses for leased exchange plant) assignable to interstate toll (D)	53,833	53,833	.....
10. Total interstate expenses	518,077	72,289	445,788
11. Total intrastate operating expenses	$6,589,152	$5,260,657	$1,328,495

(A)	Operating Expenses	Expenses per Station for all Stations, 6 months, 1932	Number of Stations Located Outside of Wisconsin	Computed Interstate Expenses
Beloit	$66,953	$11.546	316	$3,649
Hudson	10,084	11.878	25	297
				$3,946

(B) Operating expenses in connection with exchange and toll plant leased for interstate business determined from a special study.

(C) See page 2.

(D) See page 3.

[fol. 157a] Exhibit E. A. F. #5, Page 2

(C) Total toll operating expenses, exclusive of Hurley and expenses for leased toll plant, are apportioned between interstate and intrastate as indicated:

	Total exclusive of Hurley and leased plant	Apportionment	
		Interstate	Intrastate
Current Maintenance	$236,866	$53,411	$183,455
Depreciation	463,543	104,733	358,810
Apportioned on basis of use of plant.			
Traffic Expenses	463,457	99,041	364,416
Apportioned on basis of work performed by operators.			
Commercial	191,531	42,305	149,226
Apportioned on basis of operating revenue. (This is more favorable to intrastate operations because intrastate revenue is proportionately less per message than intrastate operations.)			
General and Miscellaneous	88,056	19,458	68,598
Apportioned on basis of Maintenance, Traffic and Commercial expenses.			
Taxes	194,532	42,933	151,599
Gross revenue and income taxes, apportioned on basis of gross taxable revenue.			
Uncollectible Revenues and "Uncollectible Revenues Adjustment"	224,559	5,420	19,139
Apportioned on basis of gross revenue.			
Rent Deductions	42,934	9,682	33,252
Apportioned on basis of use of facilities rented.			
Total	$1,705,478	$376,983	$1,328,495

[fol. 157b] Exhibit E. A. F. #5, Page 3

(D) Exchange Expenses Assignable to Toll on Commission Basis

1931 as per public service commission order	Adjusted exchange expenses 1931 (Page 71 of order)	Amount transferred to toll (Page 91)	Per cent
Maintenance	$2,326,232	$130,270	5.6
Depreciation	1,888,520	162,413	8.6
Traffic	2,697,883	102,451	3.797
General and Miscellaneous	632,788	25,311	4.0
		$420,445	

6 months 1932 applying public service commission's 1931 percentages	Exchange expenses less "interstate deductions"* 6 months 1932	Per cent	Computed amount assignable to toll
Maintenance	$1,415,127	5.6	$79,247
Depreciation	1,126,552	8.6	96,883
Traffic	1,210,102	3.797	45,948
General and Miscellaneous	348,681	4.0	13,947
			$236,025

Based on methods of Public Service Commission in Order of June 30, 1932.

Apportionment of exchange expenses, less "Interstate deductions,"* assignable to toll between interstate and intrastate:

	Amount	Apportionment	
		Interstate	Intrastate
Maintenance	$79,247	$18,255	$60,992
Depreciation	96,883	22,578	74,305
Apportioned on basis of use of plant.			
Traffic Expenses	45,948	9,819	36,129
Apportioned on basis of work performed by operators.			
General and Miscellaneous	13,947	3,181	10,766
Apportioned on basis of apportionment of Maintenance and Traffic expenses.			
Total	$236,025	$53,833	$182,192

* Exchange expenses exclusive of (a) Hurley, (b) interstate expenses at Beloit and Hudson, (c) expenses in connection with exchange plant leased for interstate business.

[fol. 158] EXHIBIT E. A. F. #6, PAGE 1

Wisconsin Telephone Company

Computations Setting Forth the Determination of Net Operating Income for Entire Intrastate Service and Intrastate Exchange Service, Six Months, 1932

Under Existing Rates and under Rates Prescribed by Public Service Commission Order of June 30, 1932

	Entire company	Exchange	Toll
1. Intrastate operating revenue	$7,759,038	$6,387,858	$1,371,180
2. Intrastate operating expenses	6,589,152	5,260,657	1,328,495
3. Intrastate net operating income	1,169,886	1,127,201	42,685
4. Rate reduction applicable to intrastate*	763,061†	763,061†	.....
5. Reduction in taxes and license contract payment, intrastate*	139,725	126,413	13,312
6. Intrastate net operating income after rate reduction	546,550	490,553	55,997
7. Interstate operating revenue	574,685	82,539	492,146
8. Interstate operating expenses	518,077	72,289	445,788
9. Interstate net operating income	56,608	10,250	46,358
10. Rate reduction applicable to interstate*	725†	725†	.....
11. Reduction in taxes and license contract payment, interstate*	3,894	120	3,774
12. Interstate net operating income after rate reduction	59,777	9,645	50,132
13. Total operating revenue	8,333,723	6,470,397	1,863,326
14. Total operating expenses	7,107,229	5,332,946	1,774,283
15. Total net operating income	1,226,494	1,137,451	89,043
16. Rate reduction*	763,786†	763,786†	.....
17. Reduction in taxes and license contract payment*	143,619	126,533	17,086
18. Total net operating income after rate reduction	$606,327	$500,198	$106,129

* For detail see page 2.
[† Red in copy.]

[fol. 158a] Exhibit E. A. F. #6, Page 2

Distribution of Reduction in Revenue and Expenses, 6 Months, 1932

	Entire company	Exchange	Toll
1. Total operating revenue exclusive of revenue from Hurley and from toll plant leased to others used for interstate service	$8,210,422	$6,450,518	$1,759,904
2. Interstate exchange operating revenue, Beloit and Hudson	.....	6,125	.....
3. Interstate toll operating revenue, exclusive of Hurley and leased plant	.....	.....	388,724
4. Per cent interstate of total, exclusive of Hurley	.....	.095	22.088
5. Rate reduction (A)	763,786	763,786	.....
6. Applicable to interstate	725	725	.....
7. Applicable to intrastate	763,061	763,061	.....
8. Reduction in expenses (B)	143,619	126,533	17,086
9. Applicable to interstate	3,894	120	3.774
10. Applicable to intrastate	139,725	126,413	13,312

(A)

Account	Exchange revenue exclusive of Hurley	Reduction per order (Page 98 of order)	Computed amount of reduction
500	$6,172,755	12.248%	$756,039
503	39,767	12.5	4,971
504	22,212	12.5	2,776
			$763,786

(B)

Expense item	Amount of reduction under reduced rates*		
	Entire company	Exchange	Toll
License revenue dr	$11,382	$11,382	.....
State gross revenue tax	40,667	40,667	.....
Income taxes**	91,570	74,484	$17,086
	$143,619	$126,533	$17,086

* Applicable to expenses exclusive of Hurley.
** Prorated on basis of gross taxable revenue.

[fol. 159] EXHIBIT E. A. F. #7

Wisconsin Telephone Company

Comparison of Original and Corrected Statement of Intrastate Service Apportionment, 1931

	Entire intrastate service		Intrastate exchange service	
	As previously stated	As corrected	As previously stated	As corrected
1. Average plant and equipment plus materials and supplies, working capital, and going value	$75,980,000	$73,588,891	$58,750,000	$58,210,268
2. Average fair value	71,230,000	68,757,563	54,850,000	54,202,856
3. Net operating income	2,710,000	2,582,110	2,310,000	2,301,679
4. Net operating income after revenue reduction, per Commission's Order	1,482,000	1,319,874	1,035,000	1,005,862
5. Per cent return at present rates:				
(a) On item #1	3.57	3.51	3.93	3.95
(b) " " #2	3.80	3.76	4.21	4.25
6. Per cent return with reduction in rates per Commission's Order:				
(a) On item #1	1.95	1.79	1.76	1.73
(b) " " #2	2.08	1.92	1.89	1.86

[fol. 160] EXHIBIT E. A. F. 8

Instructions Pertaining to Operating Expense Accounts

21. Repairs Defined.—Repairs, as used in the text of the various operating expense accounts, includes ordinary and extraordinary repairs.

Ordinary repairs include:

(a) Testing for, locating, and clearing crosses, breaks, grounds, and other line troubles, including routine work intended to prevent such troubles, as, for example, pulling up slack, tightening guys and resetting guy stubs, trimming trees, straightening poles and cross arms, and cleaning and adjusting apparatus;

(b) Replacements of minor or short-lived parts of structures, equipment, or facilities;

(c) Replacements of minor parts of wire plant or equipment made necessary by reason of faulty adjustments, excessive strains, mechanical injuries, or other minor casual-

ties, not provided against in the charge for depreciation of plant and equipment;

(d) Rearrangements and changes in location of plant, except subscribers' station equipment (for which a special account is provided). This includes rearrangements of circuits, reassociation of party lines, rearranging grouping of trunks and calling circuits, recross connecting on distributing frames, rerunning jumper wires, underlining switchboard jacks, etc., together with materials used for such purposes which do not add to the tangible value of such plant;

(e) Recovering salvage and removing retired or abandoned property; (except subscribers' station equipment) when such costs are not provided for by the depreciation reserve.

Ordinary repairs are not required to be taken into account in fixing a rate of depreciation.

Extraordinary repairs include:

(a) Restoring to an efficient or proper condition buildings, structures, or other units of property which have deteriorated;

(b) Substituting, in order to maintain normal efficiency, new parts for old parts of continuous structures, such as pole lines, cables, wires, conduits, etc., where such substitutions do not amount to a practical replacement of any considerable length of such continuous structures;

(c) Restoring the condition of property damaged by storms, floods, fire, or other casualties;

(d) Recovering salvage and removing retired or abandoned property in connection with above work.

Extraordinary repairs should be provided for by adequate charges to depreciation.

When it is necessary substantially to reconstruct or to replace a major portion of any unit of property or any important section of a continuous structure, the cost should be handled through the capital accounts; that is, the cost of the property removed or replaced should be credited to the appropriate fixed capital accounts and the new property should be charged thereto.

All repairs, whether ordinary or extraordinary, should be charged to the appropriate primary operating expense accounts. Extraordinary repairs for which a reserve has been provided should then be concurrently charged to ac- [fol. 160a] count No. 102, "Reserve for Accrued Depreciation—Cr.," and credited to account No. 611, "Repairs Charged to Reserves—Cr."

22. Cost of Repairs.—The cost of repairs, as used in the text of the various operating expense accounts, should be understood to include the wages, salaries, and fees paid employees directly engaged in the work of repairs, personal expenses of such employees when borne by the company, and the cost of materials and supplies consumed and the expenses of facilities employed in making the repairs less the value of any salvage recovered. It includes also the cost of direct supervision, such as of foremen or superintendents of repair gangs, but does not include the cost of general supervision as provided for in account No. 601, "Supervision of Maintenance."

23. Depreciation of Plant and Equipment.—Telephone companies should include in operating expenses depreciation charges for the purpose of creating proper and adequate reserves to cover the expenses of depreciation currently accruing in the tangible fixed capital. By expense of depreciation is meant—

(a) The losses suffered through the current lessening in value of tangible property from wear and tear (not covered by current repairs).

(b) Obsolescence or inadequacy resulting from age, physical change, or supersession by reason of new inventions and discoveries, changes in popular demand, or public requirements, and

(c) Losses suffered through destruction of property by extraordinary casualties.

The amount charged as expense of depreciation should be based upon rules determined by the accounting company. Such rules may be derived from a consideration of the company's history and experience. Companies should be prepared to furnish the Commission, upon demand, the

rules and a sworn statement of the facts, expert opinions, and estimates upon which they are based.

The estimate for depreciation of physical property should take into account—

(a) The gradual deterioration and ultimate retirement of units of property which may be satisfactorily individualized, such as buildings, machines, valuable instruments, etc., to the end that by the time such units of property go out of service there shall have been accumulated a reserve equal to the original money cost of such property plus expenses incident to retirement less the value of any salvage.

(b) The depreciation accruing in property, which can not be readily individualized, such as pole lines, wires, cables, or other continuous structures, where expenditures for repairs or replacements of individual parts ordinarily are not actually made until the later years of the life in service of such property, and when made may, therefore, be classed as extraordinary repairs.

The rate of depreciation should be fixed so as to distribute, as nearly as may be, evenly throughout the life of the depreciating property the burden of repairs and the cost of capital consumed in operations during a given month or year, and should be based upon the average life of the units comprised in the respective classes of property.

[fol. 160b] The amount estimated to cover the expense of depreciation of fixed capital should be charged monthly to account No. 608, "Depreciation of Plant and Equipment" (or to the appropriate clearing account or accounts), and concurrently credited to account No. 102, "Reserve for Accrued Depreciation—Cr."

Account No. 413, "Realized Depreciation not Covered by Reserves," is provided in the Corporate Surplus or Deficit account for charges for realized depreciation on tangible fixed capital retired when such depreciation occurred prior to the establishment of account No. 102, "Reserve for Accrued Depreciation—Cr.," or has not been provided for by credits to that account.

24. Extraordinary Casualties and Unanticipated Reconstruction.—If so authorized, upon application to the Com-

mission, the company granted such authority may charge the amount named in the authorization to a suspense account for the purpose of distributing over a limited period an extraordinary loss of such a nature that it can not be anticipated by the exercise of reasonable prudence. Losses of this sort may be due to the requirement by lawful authority or public necessity of improvements involving the abandonment of a considerable portion of plant and equipment before it has attained its normal life in service, or to an extraordinary casualty entirely unforeseen and unprovided for. The original cost of the property so abandoned or destroyed should be credited to the fixed capital accounts in which it was carried, and such portion of the cost as may be authorized by the Commission may be charged to the suspense account, the remainder of the cost, less any salvage, being charged out as elsewhere provided in case of retirements of property. The suspense account so raised should be credited and account No. 609 "Extraordinary Depreciation," debited monthly with such an amount as will, through its regular application, amortize the amount of the loss at the end of the period designated.

All ordinary casualties (those which occur with such frequency that the principles of insurance are applicable thereto) should be provided for through an insurance reserve maintained for such losses or be included in the provision for depreciation of plant and equipment.

25. Joint Operating Expenses.—When any operating expense is incurred by the accounting company for the joint benefit of itself and others under an agreement for apportioning such expenses the company charging such expenses to others should credit such amounts to its primary expense accounts to which the expenses were charged when incurred. The debtor company should charge the amounts so billed to its primary expense accounts. Bills rendered by the operating company for joint expenses should show the expenses in detail.

The amounts so handled through the expense accounts should not include any allowance for profit or return upon the value of the property used; such allowance, if any, should be credited by the payee to the appropriate rent revenue account and charged by the payor to the appropriate rent deduction account.

[fol. 161] EXHIBIT E. A. F. #9

Interstate Commerce Commission, Washington

In the Matter of a Uniform System of Accounts to be Kept by Telephone Companies

At a session of the Interstate Commerce Commission, Division 4, held at its office, in Washington, D. C., on the 19th day of December, 1927.

The matter of charges to operating expenses to provide for the contractual payment of pensions to employees regularly retired for superannuation or disability being under consideration:

It is ordered that the following instructions are hereby prescribed as a note following the text under account 672, "Relief department and pensions":

NOTE.—If a carrier has definitely undertaken by contract to pay pensions to employees when regularly retired for superannuation and/or disability and has established a fund to be held in trust for such pension purposes, the carrier shall charge to this account monthly amounts determined through the application of equitable actuarial factors to the current payrolls, which, together with interest accruals on the trust funds, will as nearly as may be provide for the payment of such pensions, or for the purchase of annuities corresponding thereto. The amounts so charged shall be concurrently credited to an insurance reserve account under account 170, "Liability on account of provident funds." The amounts accrued in each year shall correspond to the aggregate of the amounts paid into the trust fund and expended directly by the Company for pensions or annuities during the year. The carrier shall maintain a complete record of the actuarial computations through which the accrual each month of its pension liabilities is established.

Upon the adoption of the accrual plan of accounting, pension payments to employees retired before the adoption of such plan shall be charged to an existing pension reserve or to profit and loss.

[fol. 161a] Before adopting the accrual plan of accounting for pensions the carrier shall inform the Commission

of the details of its pension plan giving full statement of the facts which in its judgment establishes a contractual obligation for pension payments together with the actuarial formula under which it proposes to create its pension trust fund, and also a copy of the declaration of trust under which the fund is established.

No charge to this account shall be made in anticipation of discretionary pension payments in the future.

It is further ordered that the accounting authorized by this order shall be made effective as of the date, not earlier than January 1, 1927, on which the carrier makes effective its definite contractual obligation to pay such pensions.

By the Commission, Division 4.

George B. McGinty, Secretary. (Seal.)

[fol. 162] EXHIBIT E. A. F. #10

Photostat Copy of Page 63 of the Interstate Commerce Commission System of Accounts, Dated January 1, 1913, Containing the Definition of Account 527, Licensee Revenue, Dr.

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III. Miscellaneous Operating Revenues

520. Messenger Service.

This account should include all revenues derived from messenger service.

521. Telegraph Commissions.

This account should include all commissions receivable for the collection of telegraph and cable tolls on messages transmitted between telegraph offices and their patrons and upon which the accounting company undertakes to make collection.

522. Other Telegraph Service Charges.

This account should include all revenues (not classed as telegraph commissions or telegraph tolls) received from telegraph companies for services rendered by the

telephone company's employees in joint telephone offices in connection with telegraph and cable messages, such, for example, as receiving messages from the public and quoting rates.

523. Advertising and Directory.

This account should include all revenues derived from advertising in directories and elsewhere.

524. Rents from Other Operating Property.

This account should include all revenues accruing from the rent of buildings and other property (except leased wires, poles, conduits, and equipment covered by accounts No. 505, "Minor Rents of Exchange Plant," and No. 515, "Minor Rents of Toll Plant."), when such property is used also by the company and the expense of maintaining and operating the rented portion can not be separated from the total expense.

525. Other Miscellaneous Revenue.

This account should include all miscellaneous operating revenues not provided for elsewhere. This account does not include nonoperating revenue as provided for in accounts Nos. 310 to 316, inclusive.

526. Licensee Revenue—Cr.

When a telephone company grants to another telephone company the use of its patents or furnishes instruments and equipment and general supervision under an agreement for apportioning the revenues of the licensee, the proportion accruing to the licensor should be included by the licensor in this account.

527. Licensee Revenue—Dr.

When a telephone company is granted by another telephone company the use of its patents, or is furnished instruments and equipment and general supervision under an agreement for apportioning the revenues of the license, the proportion accruing to the licensor should be included by the licensee in this account.

[fol. 163] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF FRED E. CHANDLER

STATE OF WISCONSIN,
Milwaukee County, ss:

Fred E. Chandler, being duly sworn, on oath deposes and says:

I reside at 2204 E. Belleview Place, Milwaukee, Wisconsin. Since January 1, 1921, I have been and now am General Traffic Superintendent of the complainant, and from May 1st, 1915 to January 1st, 1921, I was Traffic Superintendent of the complainant, and during all of said period since May 1, 1915 I have been in charge of and responsible for the Traffic Department of the complainant, the change on January 1, 1921 being merely a change in title. Said Traffic Department has the management of all of the operating rooms of the complainant, directing and supervising the operations and establishing and recording telephone connections and communications, both exchange and toll. I have been engaged in the telephone business since the year 1904. I received my technical education at the Armour Institute of Technology in Chicago in the course of electrical engineering. I entered the employ [fol. 164] of the Chicago Telephone Company in the traffic department on July 24, 1904. On February 1st, 1907, I became manager of the Chicago toll room and continued in that position until May 1st, 1908. On that date, I became a Traffic Supervisor of the Chicago Telephone Company and remained in that position until January 1st, 1909. On that date, I became Traffic Engineer of the Chicago Telephone Company, remaining in that office until January 1st, 1911. On that date, I became Division Traffic Superintendent of the Chicago Telephone Company, which office I held until May 1st, 1915. On that date, I left the employ of the Chicago Telephone Company and entered the employ of the complainant at Milwaukee to become Traffic Superintendent of that Company. I held said office until January 1st, 1921, on which date my title was changed to General Traffic Superintendent.

In the conduct of my office as General Traffic Superintendent, I have kept myself informed as to the relation between the inter-state and intra-state toll business of the complainant in volume and as to the utilization of the plant and equipment and the applicability of the operations of the complainant to intra-state and inter-state services, respectively. From time to time, special studies on said subject have been made by me and under my direction with reference thereto. As a result of such studies, I have determined for the year 1931, for each of the various classes of property and operating expenses of the complainant involved in toll operations, the amount of use thereof in inter-state toll service in relation to total use in both inter-state and intra-state toll service. Said year 1931 is the same year on which the studies of the Public Service Commission of Wisconsin are based, making division of the complainant's exchange property and expenses between local service and toll service, as set forth in its order of June 30, 1932 (2-U-35), a copy of which, marked "Exhibit B," is attached to the complaint in this suit.

[fol. 165] From these studies, I determined the relation of the use of plant and equipment and other capital assets and the utilization of materials and labor and services and other items constituting operating expenses in inter-state toll service of the complainant with respect to the entire toll service of the complainant on the basis of:

a) Weighted-Message-Miles, for those classes of property on which the relation between inter-state and intra-state toll use depends upon the number of messages, the length of haul, and the duration of use; and also for those items of expense which vary with such items of property;

b) Toll Equipment-Weighted Messages, for those classes of property on which the relation between inter-state and intra-state toll use depends upon the number of messages and the amount of time that toll central office equipment is in use per message; and also for those items of expense which vary with such items of property;

c) Subscribers'-Weighted Messages, for those classes of property on which the relation between inter-state and intra-state toll use depends upon the number of messages and the amount of time that equipment associated with the subscribers' line is in use per message;

d) Operators'-Weighted Messages, for all traffic expenses because the relation between inter-state and intra-state traffic expenses depends almost entirely on the number of messages and the amount of operating labor per message.

For the Weighted Message-Mile relation, I had available a record taken on twenty representative business days in 1931 of every toll message passing over the toll lines of the complainant or handled through the switchboards of the complainant. This study showed the number of toll messages and the number of circuit miles of the complain-
[fol. 166] ant's toll line employed on each message. The results of this study are representative of traffic conditions and the relation of relative mileage of inter-state and intra-state messages in the year 1931. As the records and experience of the complainant's Traffic Department show that the amount of time that the speaking parties use the toll lines plus the time that the operators use the toll lines on inter-state toll messages is greater than the average use of the toll lines on all messages, I employed a modifying factor reflecting this difference in length of time of toll line use per message. This modifying factor is based on my own knowledge and experience verified by the experience of other Bell System companies.

For the Toll Equipment-Weighted Message relation, I had available a record of the total number of inter-state and intra-state toll messages utilizing complainant's toll central office equipment for the entire year 1931 and said same factor reflecting the greater length of time of use of the Toll Central Office Equipment per message by speaking parties and operators on inter-state toll messages in relation to total toll messages.

For the Subscribers'-Weighted Message relation, I had available a record of the total number of intra-state and inter-state toll messages utilizing exchange equipment of the complainant for the entire year 1931 and said same factor reflecting the greater length of time of use of subscribers' equipment per message by speaking parties and operators on inter-state toll messages in relation to total toll messages.

For the Operators'-Weighted Message relation, I had available a record of the total number of inter-state and intra-state toll messages for the entire year 1931 and a

factor showing the greater average amount of time required of an operator on inter-state toll messages in rela-
[fol. 167] tion to total toll messages. This modifying factor is based on my own knowledge and experience verified by data derived from regular routine observations of operators' time.

From all of these studies, I determined that the relationships were as follows; to-wit:

Weighted Message-miles

	Message miles	Per cent	Holding time factor	Modified per cent
Intrastate	34,571,262	84.11	.....	79.34
Interstate	6,550,833	15.89	1.300	20.66
Total	41,222,095	100.00	.....	100.00

Toll Equipment-weighted Messages

	Messages	Per cent	Holding time factor	Modified per cent
Intrastate	7,940,469	80.34	.....	74.44
Interstate	1,943,369	19.66	1.300	25.56
Total	9,883,838	100.00	.....	100.00

Subscribers'-weighted Messages

	Messages	Per cent	Holding time factor	Modified per cent
Intrastate	10,462,301	81.72	.....	76.24
Interstate	2,340,864	18.28	1.300	23.76
Total	12,803,165	100.00	.....	100.00

Operators'-weighted Messages

	Messages	Per cent	Holding time factor	Modified per cent
Intrastate	10,462,301	81.72	.....	78.63
Interstate	2,340,864	18.28	1.169	21.37
Total	12,803,165	100.00	.....	100.00

The foregoing percentages of use are applicable for the determination of the inter-state use of the items of complainant's property and operating expenses as follows, to-wit:

[fol. 168] The Weighted Message-Mile relation, to-wit: the inter-state use as 20.66% of the total toll use, is applicable to the following classes of complainant's toll plant, to-wit: Right of Way, Pole Lines, Aerial Cable, Aerial Wire, Underground Conduit, Underground Cable, Submarine Cable, General Store Equipment, General Stable and Garage Equipment, General Tools and Implements.

The Toll Equipment-Weighted Message relation, to-wit: the inter-state use as 25.56% of the total toll use is applicable to the following classes of complainant's toll plant, to-wit: Land, Buildings, Central Office Telephone Equipment, Other Equipment of Central Office, and Office Furniture and Fixtures.

The Subscribers'-Weighted Message relation, to-wit: the inter-state use as 23.76% of the total toll use is applicable to the following classes of complainant's toll plant, to-wit: Station Apparatus, Station Installations, Booths and Special Fittings, and also to all classes of property of complainant's exchange plants used in the transmission of toll messages.

The items of Interest During Construction, Materials and Supplies, Working Capital and Going Value Allocable, respectively, to the complainant's toll property and to the portion of the complainant's exchange property apportioned to toll use are allocable as between inter-state and intra-state service in the same proportions as the sum of the other items of complainant's toll plant and the portion of complainant's exchange plant respectively apportioned to toll service.

Current Maintenance and Depreciation are allocable as between inter-state toll and total toll use on the same basis as the respective items of property to which such charges for Current Maintenance or Depreciation are applicable, excepting that the items of supervision of maintenance and [fol. 169] the so-called "Other Maintenance Expenses" are allocable in the same proportion as the sum of all the other toll maintenance items.

All traffic expenses are allocable on the basis of the Operators'-Weighted Messages, to-wit: inter-state toll traffic expense as 21.37% of the total traffic expense allocable to toll service.

(Signed) Fred E. Chandler.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires December 11, 1932. Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 170] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF FRANK M. MCENIRY

STATE OF WISCONSIN,
Milwaukee County, ss:

Frank M. McEniry, being duly sworn, on oath deposes and says:

I am the same Frank M. McEniry who made an affidavit herein, verified the 27th day of July, 1932, and am General Commercial Superintendent for the complainant. This supplementary affidavit has special reference to subdivision numbered 7 of the Bill of Complaint in this suit alleging that the rates of the complainant in effect on June 30, 1932, and on the date of said complaint were duly established by the complainant from time to time theretofore and filed with the defendant Commission and that many of said rates were fixed by express orders of said Commission; and also to the allegation in subsection (c) of subdivision numbered 16 of said complaint, that the alteration in complainant's rates as ordered by the defendant Commission was and is not necessary to and will not prevent injury to the business or interests of the public; and also to the opinion expressed in my said affidavit that the said [fol. 171] reduction of rates would not enable any persons to procure telephone service who would not be able to afford and procure such service at the present rates therefor, and also to identifying certain decisions of the defendant Commission on toll rates.

There were on June 30, 1932, and on July 27, 1932, and there now are in effect 96 schedules of rates covering exchange service in each of the 96 exchanges of the complainant in the State of Wisconsin and one schedule of rates covering intrastate toll service of the complainant in Wisconsin. Each of the said schedules of exchange rates contain an average of 240 items. The subscribers' rates at ninety-three of the complainant's exchanges were established by specific order of the defendant Commission (under its former name of Railroad Commission) upon formal application and after public hearing. The rates in

one of said exchanges, to-wit: at Darlington, Wisconsin, were established prior to the creation of said Commission and were filed with the said Commission and accepted by it as the rates in force on April 1st, 1907, under Chapter 499 of the Laws of Wisconsin for 1907, and have not since been increased. Of the remaining two exchanges of said complainant, to-wit: at Lawsonia and Hurley, Wisconsin, the rates at Lawsonia were established by filing the same with the said Commission and by its acceptance thereof; and the rates at Hurley are for interstate service entirely but were none-the-less filed with said Commission.

The schedule of rates covering intrastate toll service was established in ten different proceedings before said Commission, in eight of which rates were made effective by specific order of said Commission upon formal application and after public hearing, and in the remaining two proceedings rate reductions were effected by filing the schedule with said Commission and its written acceptance thereof. In addition, rates for special service and charges for new [fol. 172] and infrequently used items of equipment have been established in thirteen proceedings, in three of which rates were made effective by specific order of the defendant Commission upon formal application and after public hearing and in the remaining ten proceedings rates were made effective by filing the schedule with the Commission and its written acceptance thereof.

There is attached hereto a schedule, marked "Exhibit F. Mc. No. 1" and made a part of this affidavit, setting forth the establishment of rates in each of the said 96 exchanges and the proceedings establishing the toll rates and the rates and charges for special service and equipment hereinbefore referred to, and stating the date and Commission's case order number or the date of filing and date of acceptance in each case. The matters stated in said Exhibit F. Mc. No. 1 are true.

A study has been made under my supervision of the effect which there would be on the complainant's subscribers, as they were constituted on July 31, 1932, of the reduction in rates prescribed by the order of the said Commission, dated June 30, 1932, the enjoinment of the enforcement of which is a purpose of this suit. I have thus determined that, of a total of 203,834 residence subscribers which the

complainant then had, 119,936 or 58.8% would receive a reduction of less than one per cent per day in the amount paid for complainant's exchange service, if said order were permitted to become effective, and 199,388 residence subscribers (including said first group) or 97.8% would receive a reduction of less than two cents per day for such service, if said order were permitted to become effective. I have determined that, of a total of 51,828 business subscribers, 43,912 or 84.7% would receive a reduction of less than three cents per day in the amount paid for complainant's exchange service, if said order were permitted to become effective. Taking all of complainant's subscribers for exchange service together, constituting both the residence and [fol. 173] the business subscribers, at said time, aggregating 255,562 subscribers, 227,991 or 89.2% would receive a reduction of less than two cents per day in the amount paid for said service, and 247,197 or 96.7% (including said first group) would receive a reduction of less than three cents per day if the said order were permitted to become effective.

Attached hereto, marked "Exhibit F. Mc. No. 2" and made a part hereof, is a copy of the decision of the defendant Commission under its former name of Railroad Commission of Wisconsin in case No. U-3049 in re Application of Rock County Farmers Telephone Company, etc., officially reported in Volume 28 of the Wisconsin Railroad Commission reports at pages 47 et seq.; and attached hereto, marked "Exhibit F. Mc. No. 3" and made a part hereof, is a copy of the decision of said Commission in case No. U-3294 in re Application of the Marathon City Telephone Company, etc., officially reported in Volume 29 of the Wisconsin Railroad Commission reports at pages 210, et seq.; and also attached hereto, marked "Exhibit F. Mc. No. 4" and made a part hereof, is a certified copy of the decision of said Commission in case No. U-3899 in the Matter of the Application of the Wisconsin Telephone Company, etc., decided January 5, 1931, and not yet officially reported.

(Signed) Frank M. McEniry.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 174] EXHIBIT F. Mc. #1

Wisconsin Telephone Company

Subscribers' Rates Now in Effect Which Were Approved and Ordered by the Public Service Commission of Wisconsin (under Its Former Name of Railroad Commission of Wisconsin) After Formal Hearing

Exchange	Number and date of order	
Algoma	U-2117	October 29, 1920.
Appleton	U-2164	November 24, 1920.
	U-3093	February 26, 1925.
Ashland	U-2238	February 28, 1921.
Baraboo	U-2116	October 29, 1920.
Bayfield	U-2031	September 30, 1920.
Beaver Dam	U-2115	September 28, 1920.
Beloit	U-2116	November 24, 1920.
	U-3336	October 22, 1926.
Berlin	U-2121	October 29, 1920.
	U-3335	June 15, 1926.
Bruce	U-2466	June 30, 1921.
	U-3219	June 29, 1925.
Burlington	U-2123	September 28, 1920.
Burnett Junction	U-2016	September 30, 1920.
Cedarburg	U-2019	September 30, 1920.
Cedarburg-Grafton	U-3755	May 17, 1929.
Chippewa Falls	U-2372	May 27, 1921.
Columbus	U-2057	October 29, 1920.
	U-3280	December 31, 1925.
Cornell	U-2469	July 15, 1921.
	U-3216	June 29, 1925.
Delavan	U-2075	September 28, 1920.
De Pere	U-2200	November 22, 1920.
	U-3091	March 31, 1925.
Eau Claire	U-2406	June 22, 1921.
Ellsworth	U-3423	September 28, 1926.
Evansville	U-2056	October 30, 1920.
	U-3308	December 31, 1925.
Fond du Lac	U-2170	November 24, 1920.
Fort Atkinson	U-2966	March 31, 1924.
Frederic	U-2949	May 14, 1924.
Genoa City	U-2050	September 30, 1920.

Exchange	Number and date of order
Grantsburg	U-2950 June 28, 1924.
Gratiot	U-2204 December 31, 1920.
Green Bay	U-2199 November 24, 1920. U-3090 October 30, 1926. U-3090 November 5, 1927.
Green Lake	U-2229 December 31, 1920.
Greenville	U-2490 July 25, 1921.
Hales Corners (Saint Martins)	U-3711 July 30, 1928. U-2015 September 30, 1920.
Hartford	U-2128 October 29, 1920.
Hartland	U-2131 October 30, 1920.
Horicon	U-2027 September 30, 1920. U-3346 June 15, 1926.
Hortonville	U-2023 September 30, 1920.
Hudson	U-2114 October 29, 1920. U-3293 December 31, 1925.
Janesville	U-2351 June 20, 1921. U-3095 February 26, 1925.
Jefferson	U-2039 October 30, 1920. U-3075 September 15, 1924.
[fol. 174a]	
Juneau	U-2132 October 29, 1920. U-3347 June 15, 1926.
Kaukauna	U-2125 October 29, 1920. U-3333 June 15, 1926.
Kenosha	U-2169 November 24, 1920.
Kewaunee	U-2133 October 29, 1920.
Ladysmith	U-2466 June 30, 1921.
Lake Geneva	U-2140 September 28, 1920.
Lima Center	U-2042 October 29, 1920. U-3096 February 26, 1925.
Little Chute	U-2029 September 30, 1920.
Madison	U-2357 July 22, 1921.
Manitowoc	U-2485 November 30, 1921.
Marinette	U-2527 October 28, 1921. U-3899 January 3, 1931.
Mayville	U-2122 October 29, 1920. U-2940 February 18, 1923.
Mazomanie	U-2283 December 31, 1920.
Menomonie	U-2130 October 29, 1920. U-3340 June 21, 1926.
Merrill	U-2113 October 29, 1920.

Exchange	Number and date of order
Milwaukee	U-524 April 18, 1916. U-1771 January 30, 1920. U-2556 January 9, 1922.
Neenah	U-2368 May 26, 1921.
New London	U-2040 October 30, 1920. U-2939 December 18, 1923.
North Freedom	U-2736 October 23, 1922.
Oconomowoc	U-2129 September 28, 1920. U-3883 January 28, 1930.
Oconto	U-2120 October 29, 1920.
Oconto Falls	U-2438 July 25, 1921.
Omro	U-2020 November 22, 1920. U-3194 June 29, 1925.
Oshkosh	U-2163 November 24, 1920.
Peshtigo	U-2138 September 30, 1920.
Pewaukee	U-3884 March 28, 1930.
Port Washington	U-2069 October 30, 1920.
Prentice	U-2466 June 30, 1921.
Princeton	U-2024 September 30, 1920. U-3218 June 29, 1925.
Racine	U-2156 November 24, 1920.
Red Granite	U-2044 September 30, 1920.
River Falls	U-3443 November 23, 1926.
Roberts	U-3278 December 31, 1925.
Shawano	U-2126 October 29, 1920. U-3190 August 26, 1925.
Sheboygan	U-3318 March 30, 1926.
Sheboygan Falls	U-3900 March 28, 1930.
Shullsburg	U-3725 February 14, 1929.
South Milwaukee	U-2049 November 22, 1920. U-3098 February 26, 1925.
Spring Valley	Not Numbered July 31, 1919.
Stanley	U-2030 September 30, 1920.
Stevens Point	U-2486 October 28, 1921. U-3281 December 31, 1925.
Stoughton	U-2145 October 29, 1920.
Sturgeon Bay	U-2124 October 29, 1920. U-3339 September 28, 1926.
Sturtevant (Corliss)	U-3302 December 31, 1925. U-2070 October 29, 1920.

[fol. 174b]

Exchange	Number and date of order	
Superior	U-2533	December 23, 1921.
	U-3337	October 22, 1926.
Thiensville	U-3755	May 17, 1929.
Washburn	U-2228	February 28, 1921.
Watertown	U-3358	June 15, 1926.
Waukesha	U-2487	October 28, 1921.
	U-2487	May 31, 1922.
Waupaca	U-2119	December 31, 1920.
Waupun	U-2068	October 30, 1920.
	U-2503	July 25, 1921.
West Bend	U-2111	November 22, 1920.
Whitewater	U-2139	September 28, 1920.
	U-3334	November 30, 1928.
Winneconne	U-2112	September 30, 1920.
	U-3217	June 29, 1925.
Wiota	U-2203	December 31, 1920.
Wrightstown	U-2201	November 22, 1920.
	U-3220	June 21, 1926.
Toll Service:		
Intra State Toll Message Rates (General)	U-3461	December 23, 1926.
Other Toll Message Rates (Special):		
Chippewa Falls-Eau Claire	U-3088	March 31, 1926.
Sheboygan-Sheboygan Falls	U-3444	April 4, 1927.
Mazomanie-Sauk City	U-3730	July 30, 1928.
Menomonie to Downsville	U-3908	February 24, 1930.
Thiensville-Grafton	U-3718	May 17, 1929.
Marinette to Harmony Corners	U-3899	January 3, 1931.
Toll Division of Revenue (Rock County Rural Telephone Co.)	U-3049	August 4, 1924.
Other Service and Equipment:		
Service Connection and Move Charges	U-1752	March 5, 1920.
Seasonal Service	U-3248	December 21, 1925.
	U-3262	
Hand Telephone Sets	U-3660	February 23, 1928.

[fol. 174c] Wisconsin Telephone Company

Subscribers' Rates Now in Effect Which Were Accepted by the Public Service Commission of Wisconsin (under Its Former Name of Railroad Commission of Wisconsin) After Filing.

Exchange	Dates filed	Dates accepted
Darlington	April 1, 1907	April 1, 1907
Hurley (Interstate)	June 1, 1921	June 1, 1921
Lawsonia (New Exchange)	May 27, 1930	June 14, 1930
Toll Service:		
Reduction of Intra State Toll Message Rates (General)	January 25, 1929	January 30, 1929
Reduction of Intra State Toll Message Rates (General)	November 30, 1929	December 9, 1929
Other Service and Equipment:		
5x12 Private Branch Exchange Cordless Switchboard	October 7, 1929	October 19, 1929
Dial Private Branch Exchanges	September 20, 1929	March 8, 1930
Public Telephones	February 21, 1930	March 3, 1930
Semi-Public Telephones	February 21, 1930	March 3, 1930
Leased Exchange Facilities	February 21, 1930	March 3, 1930
Leased Toll Line Facilities	February 21, 1930	March 3, 1930
Amplifier Equipment for Partially Deaf	July 9, 1930	September 2, 1930
Wiring Plans	December 15, 1930	December 23, 1930
Multiple Line Key Cabinet	January 9, 1931	January 17, 1931
Optional Service Connection Charge for Extension Telephones	May 24, 1932	May 28, 1932

[fol. 175] EXHIBIT F. MC. #2

BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

In the Matter of the Application of the ROCK COUNTY FARMERS TELEPHONE COMPANY for a Division of the Proceeds of Toll Messages Between the Toll Lines of the Wisconsin Telephone Company and the Lines of Applicant and Petitioner

U-3049

To all to whom these presents shall come:

This is to certify that the attached copy of decision and order of the Public Service Commission in the above-entitled matter is a true copy of the original decision and order on file in the office of said Commission.

Dated at Madison, Wisconsin, this 3rd day of September, 1932.

Public Service Commission of Wisconsin. (S.) A. R. McDonald, Commissioner. (Seal of the Public Service Commission.)

[fol. 175a] RAILROAD COMMISSION OF WISCONSIN

U-3049

In the Matter of the Application of the ROCK COUNTY FARMERS TELEPHONE COMPANY for a Division of the Proceeds of Toll Messages Between the Toll Lines of the Wisconsin Telephone Company and the Lines of Applicant and Petitioner

This case was filed May 20, 1924. The applicant is a public utility owning and operating certain rural telephone lines furnishing telephone service in rural territory adjacent to Janesville and connecting at the city limits of Janesville with circuits of the Wisconsin Telephone Company and receiving its central office service from that company. Complaint is made that the Wisconsin Company collects and retains all charges for toll messages between the lines of the Rock County Farmers Telephone Company and the toll lines of the Wisconsin Telephone Company. Petitioner alleges that it is entitled to a considerable portion of the charges thus collected and asks that the Commission make due investigation as to the receipts of the Wisconsin Telephone Company for toll charges between its lines and the lines of the p-titioner including the amounts received by the Wisconsin Telephone Company in detail. It further asks that the Commission enter an order apportioning the amount so received between the two companies from the first day of December, 1921, to the date of the filing of this petition and from the date of filing of this petition until the further order of the Commission.

An answer and cross petition was submitted by the Wisconsin Telephone Company of which the material portions are (1) an allegation that the present toll rates throughout the State of Wisconsin are based on the toll service to and from the toll switchboard at each exchange central office and that the use in and for the transmission of toll messages of the telephone instrumentalities at the subscribers' stations instead of those at the public station at the central office is part of the exchange service furnished by the Wis-
[fol. 175b] consin Telephone Company;

file with the Commission and that it would result in unjust discrimination to grant any lower rate to the subscribers on

the petitioner's lines either directly or indirectly and that the making of any payment on account of such toll service to the petitioner would augment the petitioner's revenue and thus result in permitting it through the device of decreasing its monthly rates to its subscribers, in effect to furnish them the equivalent of a reduced toll rate (3) that the Wisconsin Telephone Company does the work of collecting all toll charges for toll service furnished to the subscribers on the petitioner's lines.

By way of cross petition the Wisconsin Telephone Company asks that the so-called "roadway switching charge" paid by the petitioner be increased from 75¢ per month to at least $1.45 per month per station.

Hearing was held at Madison June 20, 1924. The Rock County Telephone Company was represented by A. E. Matheson and by Richard Valentine and on behalf of the Wisconsin Telephone Company Edwin S. Mack of Miller, Mack & Fairchild, together with J. F. Krizek and F. M. McEniry of the Wisconsin Telephone Company, appeared.

In so far as the application of the Rock County Farmers Telephone Company is concerned, there is only a single issue before us,—that is, whether or not the making of toll rates on such a basis that they carry the cost from toll switchboard to toll switchboard only is a proper basis or whether those rates should be so made that they carry the cost from subscribers' station to subscribers' station. The present toll rates of the Wisconsin Telephone Company are based upon the theory that the toll message rate should carry the cost from toll switchboard to toll switchboard and that the use of the local lines and equipment in delivering the message from toll switchboard to subscribers' stations is the same sort of use that is involved in regular exchange service, such, for example, as that furnished in the delivery of a telegraph message from the telegraph office to the subscribers' station.

Some argument may be made in support of either basis of fixing toll rates which appeals to the individual presenting the argument. The present system amounts to placing in the exchange rates paid by telephone subscribers a small readiness to serve charge for the privilege of connection with toll service. There is no showing in this case which [fol. 175c] would warrant us in overthrowing it and it is our opinion that it constitutes a proper basis for fixing toll

rates and it is, in fact, the basis on which we have established the exchange rates in every case which has come before us and on which we have conducted such investigations as we have made of the toll rate situation. The present rate which the Rock County Farmers Telephone Company charges to its subscribers results in charging those subscribers the full cost of exchange service, including the use of the lines between the subscribers' station and the toll switchboard. The last annual report of the Rock County Farmers Company, it is true, indicates a deficit, but 10% provision has been taken for depreciation and a salary has been provided for officers which we believe is out of proportion to any services rendered by them.

If the basis asked by the petitioner were adopted and carried to its logical extreme, the Commission would be required in every telephone exchange rate case to divide the expenses between the local system and the toll system, to make an apportionment of the property, and to make detailed traffic studies. The result of this would be that it would be virtually impossible with the facilities at the command of the Commission to establish proper exchange rates in the great number of cases which come before it. This is not a reason, of course, for continuing the present system if that system is wrong, but we see no reason why the principle that the exchange subscriber should pay a small standby charge for the use of the toll system is any different from the principle that a power user should pay a standby charge for the privilege of receiving electric service and such standby charges are almost universal in electric power rate schedules. Similar charges are present in many schedules for water and gas service. We have to conclude, therefore, that the establishment of toll rates on such a basis that the revenue produced covers the cost from toll board to toll board, in line with the present practice, is a proper basis of establishing toll rates and it follows that the complaint of the Rock County Farmers Telephone Company should be dismissed.

[fol. 175d] Farmers Telephone Company has been in effect only a little over one and one-half years. We do not believe that conditions have changed so radically as to require a modification of this rate, at least at the present time. The cross complaint will therefore also be dismissed.

It is therefore ordered that the application of the Rock County Farmers Telephone Company seeking a division of the revenue from toll messages between the Wisconsin Telephone Company and itself, and the cross complaint of the Wisconsin Telephone Company, in which an increase in the switching rate to the Rock County Farmers Telephone Company is asked for, be and the same hereby are dismissed.

Dated at Madison, Wisconsin, this 4th day of August, 1924.

Railroad Commission of Wisconsin. Lewis E. Gettle, A. R. McDonald, Commissioners.

GCM:MB.

[fol. 176] EXHIBIT F. Mc. #3

BEFORE THE RAILROAD COMMISSION OF WISCONSIN

U—3291

In the Matter of the Application of the MARATHON CITY TELEPHONE COMPANY for Authority to Make an "Other Line" Charge on Toll Messages Terminating on Its Rural Lines

The application before us was filed August 24, 1925. Petitioner seeks our approval of a 10 cent "other line" charge on all toll messages terminating on its rural lines. A similar application was filed by the same petitioner May 7, 1925, and was dismissed by the Commission July 29, 1925.

Hearing in the pending petition was held at Madison, September 16, 1925, when the following appearances were entered:

For the Marathon City Telephone Company, F. X. Schilling, president;

For the Marathon County Telephone Company, H. I. Crawford, secretary;

For the Wisconsin Telephone Company, J. F. Krizek, attorney.

The applicant operates a telephone exchange at Marathon City where it serves 190 subscribers, who are residents and business men of the village and the adjacent rural territory. The classification of the subscribers is about as follows:

Business, 33; Residence, 19; Rural, 138.

The applicant's wire plant consists of about 61 miles of poles and 148 miles of wire. All lines, according to the company's annual report filed with the Commmission, are full metallic.

The arguments advanced by the applicant, in favor of the "other line" charge, in its petition and in the testimony offered at the September 16 hearing, are based upon its need for additional revenue. It sets forth that the territory occupied by its rural lines is but sparsely populated, and as a result of this condition the cost of rendering service to its widely separated rural subscribers is in ex- [fol. 176a] cess of the revenue it can obtain from the application of reasonable rates.

The proposal of the applicant amounts to classifying all toll users who call rural lines, as non-subscribers of the company, from whom it would collect a non-subscriber charge of 10 cents per call. It would not, however, make the same classification of these same toll users in cases where their calls terminated with residence or business subscribers. No charges would be made where toll messages terminate on the local lines of the company.

The average number of applicant's subscribers per mile of circuit is slightly greater than two. While such an average is rather low there are many small companies operating in the state under conditions no more favorable than these.

A "lean" territory is without doubt a contributing factor to the lack of prosperity with many companies. It may be so in this case, but we are unable to convince ourselves that any really serious condition exists in the earning capacity of this utility which is directly chargeable to "poor" territory. We would be more inclined to believe that insufficient earnings, if such existed, could be charged to inadequate exchange rates. The rate charged by the utility is but $1.35 per month for which it furnishes rural

subscribers with full metallic service. This charge is much below the average rate prevailing in the state for this class of service; and we doubt very much if the charge now made by the applicants for this better class of service will exceed the average state rate for grounded service.

While the applicant's charges for service may be below the average, and although it may need some additional revenue, we are not inclined to argue these matters in this particular discussion.

We call to the attention of the applicant's officers certain practices which they have sanctioned in the past which, if continued, will result disastrously for the utility. We are quite convinced, after reviewing the applicant's reports submitted annually to the Commission and after reading [fol. 176b] the testimony given by the company's president at the last hearing, that the officers of the utility have a wrong understanding of the causes of its present unfavorable financial conditions. The company is not suffering so much from a lack of revenues as it is from an unwise appropriation of earnings.

We feel that the company's present dilemma is due to a large extent to its failure to follow sound business methods in the conduct of its affairs. The company's president testified at the September 16th hearing that the company had no depreciation reserve because its earnings had never been sufficient to meet operating expenses and to provide for the necessary reserve charges and that the absence of this reserve made it impossible to rebuild the rural plant, although such reconstruction was badly needed—unless it was insured an income from the "other line" charge through favorable action on the part of the Commission.

It will be of interest to note the applicant's statement of operating revenues for each of the past five years and also the statements showing the disposition of these earnings. Table I shows the utility's income accounts for the years 1920 to 1924, inclusive. All the figures shown are taken from the company's annual reports submitted to the Commission.

Table I

Income Accounts

Marathon City Telephone Company

For the Years Ended December 31

	1920	1921	1922	1923	1924
Operating Revenues:					
Subscriber telephone earnings	$3,213.83	$3,012.55	$3,125.28	$3,406.99	$3,237.79
Non-subscriber " "	.....	.....	.....	.....	381.45
Switching service "	15.25	.....	.....	.....	5.90
Commissions on long distance tolls	24.00	107.46	133.61	141.35	200.85
Total Operating Revenues	3,253.08	3,120.01	3,258.89	3,548.34	3,825.99
Operating Expenses:					
Central office expense	731.87	951.80	1,020.00	990.00	900.00
Wire plant expense	624.00	318.00	687.89	622.56	657.00
Station expense	838.20	636.10	337.30	750.13	999.97
Commercial expense	15.00	4.98	11.43	24.87	4.85
General expense	98.00	138.38	140.00	.....	141.00
Undistributed expense	25.39	10.00	15.10	17.00	25.30
Total above items	2,332.46	2,059.26	2,212.02	2,404.56	2,728.12
Depreciation	.....	.....	400.00	.....	.....
Contingencies	.....	.....	.....	.....	9.36
Taxes	72.01	75.17	77.88	81.88	89.00
Total Operating Expenses [fol. 176c]	2,404.47	2,134.43	2,689.90	2,486.44	2,826.48
Net operating revenue or deficit	848.61	985.58	568.99	1,061.90	999.51
Non-operating revenues	.....	29.24	7.90	.....	.....
Gross income	848.61	1,014.82	576.89	1,061.90	999.51
Interest deductions	.....	6.50	.....	.....	.....
Net income or Deficit	848.61	1,008.32	576.89	1,061.90	999.51
Dividends	435.00	655.50	836.00	914.00	926.00
Surplus for Year	413.61	352.82	309.11*	147.90	73.51

* Deficit.

A glance at Table I shows that the applicant has failed to make the proper provisions for depreciation reserve for each of the years included. In only one instance—1923—has any charge been made to operating expenses for the purpose of providing for such reserve, and in that case the charge was inadequate.

We are convinced, after a study of the applicant's operating statements, that its lack of an adequate reserve is not due to insufficient earnings, as has been set forth by the company's representative, but rather this unfavorable condition has come about because the company has declared and paid dividends to its stock holders ahead of any provision for its reserves. The dividends shown in the table are equivalent to the following percentages on the stock outstanding at the end of the years indicated:

1920	6¼%
1921	9⅜%
1922	12½%
1923	12½%
1924	12½%

The Public Utilities Act provides that every public utility shall carry a proper and adequate depreciation account when so directed by the Commission. The Commission has provided for an accounting for depreciation in its prescribed accounting system applicable to the utility now before us. It is evident, however, from the figures set forth in Table I, that the company has failed to comply with our requirements.

Unless the applicant provides for an adequate reserve in the future ahead of any dividends, the Commission will proceed on its own motion to investigate its practices and prescribe such penalties as may be appropriate under the [fol. 176d] circumstances. Under present conditions a sum equal to 6% of the book value of the physical property of the plant, excluding land, should be charged annually to operating expenses and credited to depreciation reserve.

The Commission cannot recognize a request from the applicant for increased revenue, under existing conditions, so far as its present application for an "other line" charge is concerned. Our refusal to authorize the applicant's re-

quest for an "other line" charge will not be based, however, upon the question of whether the company's present revenues are inadequate or not; nor do we base our refusal upon the company's improper disposition of its earnings.

We take the position that the principle of the "other line" charge is wrong because it tends to shift a part of the costs of rendering local service,—which is properly chargeable to local subscribers,—to users of toll service at distant exchanges, and because of the difficulties such a charge presents in the administration of toll schedules.

We have on several occasions stated our position with reference to the matter of "other line" charges, and for the benefit of the applicant we will quote from the more important ones:

If the applicant will refer to 16 W. R. C. R. pp. 819-826 (In re Application of the Elroy Telephone Company for Authority to Fix Terms upon which Subscribers may Receive Long Distance Connections, etc.) it will note the Commission commented as follows:

"The effect of this 'other line' charge, of course, is to shift the burden of making up a deficit in local operating revenues, if such exists, to a greater or less extent on to patrons of other companies who have occasion to hold long distance communication with subscribers of the Elroy Company. • • •

"The principle of an 'other line' charge is one which we do not feel is in line with the best development of the telephone toll business. The imposition of such charges in addition to regular toll line tariffs inevitably leads to more or less confusion as to the reasonableness of toll rates, and is often the cause of complaint that toll rates are not being properly applied. It would seem preferable that the toll rate should be a unit and should provide for the delivery of the message upon the lines of the local system. To be sure, the local company performs a service for which it should be compensated, but we do not believe it advisable to au- [fol. 176e] thorize that this compensation be taken in the form of an 'other line' charge added to the regular toll rate. The question of whether or not the present division of toll revenues between the local and the long distance company is a reasonable one has not been raised in this case and need not be gone into at the present time. That

portion of the application asking for authority to put in effect an 'other line' charge on incoming toll messages, must, therefore, be denied."

The telephone companies operating toll lines in this state have, for the most part, standardized their toll schedules through their adoption of the schedules for toll charges, promulgated by the Post Master General during the war period of the Federal Government's control of telephone utilities.

The schedules now in effect are based upon air line mileage between exchange offices, the charges for any particular class of messages varying only with the distance between exchange offices and the time the circuit is held in actual conversation. Messages having the same holding time transmitted between exchanges equally distant take the same charge irrespective of the location of the exchanges. The basic charges for given distances between exchanges are as follows:

Distances between exchanges	Basic rate
0—12 miles	10 cts.
12—18 "	15 "
18—24 "	20 "
24—32 "	25 "
32—40 "	30 "
40—48 "	35 "
48—56 "	40 "

For each additional 8 miles or fraction thereof, 5 cts. additional.

Where the direct air line distance between points is in excess of 40 miles, distances are determined as the air line distance between the centers of blocks 7 miles square within which the point- of communication are located, and, where the distance is in excess of 350 miles, by the air line distance between the centers of sections 35 miles square.

Because of the uniformity of the present toll schedules it is possible for the toll operator at any Wisconsin exchange to quote the proper rate to any other Wisconsin exchange. It is also possible for her to quote the charges on interstate messages as this same uniformity in charges ex- [fol. 176f] tends to interstate business.

If local exchanges were permitted to add "other line" charges to the standard rates the uniformity of the schedules would at once be destroyed, and it would not be possible for operators to quote the rate to exchanges with which they were not familiar. As an example: A Madison toll operator can readily determine from her standardized rating chart the charge on a station-to-station message to Marathon City. If the "other line" charge were authorized for messages to rural subscribers, the rate determined from her chart would be incorrect and the calling party would be charged the wrong amount unless the Madison operator should first determine from the Marathon City checking station that an "other line" charge was applicable.

It can readily be seen that the chance for error in quoting rates, the operator's average time per message and the holding time per message on the circuits would be greatly increased by the institution of "other line" charges. This would be true if the charges were authorized only at a few exchanges, because the operator at whose exchange a call originated could not with certainty, quote a rate or make a ticket charge until she had first determined from the exchange checking the called station whether or not an "other line" charge was applicable.

The applicant proposes to add the "other line" charge only on long distance messages terminating with subscribers on rural lines. If the request were authorized the following conditions would immediately obtain:

1. There would be two charges for each class of toll calls from every other exchange to the Marathon City exchange, as follows:

(a) The toll charge applicable to business and residence subscribers and to toll stations.

2. The toll charges on any incoming long distance call to a rural subscriber would be more by the amount of the "other line" charge, than the charge on an out going call to the same exchange.

[fol. 176g] If the principle of the "other line" charge is extended to rural lines, we know of no reason why it should not be made applicable to local residence and business lines. However, the average length of line used to serve

business and residence subscribers is less than the average length of line used to serve rural subscribers, and if the "other line" charge is to be administered on a cost to serve basis it is probable that there should be a differential in the "other line" charge in favor of the local subscriber. If the analysis of the cost to serve is carried to the extreme, it is possible that the results of the analysis would show a differential in the "other line" charge as between business and residence lines.

If we assume a condition involving only the three main classifications of telephone subscribers—business, residence, and rural, each with a different "other line" charge, and the four main classes of toll calls -station-to-station, person-to-person, report, and appointment calls (each class presenting a different rate); we commence to realize how difficult and confusing the administration of an "other line" charge may become.

Under each class of long distance message as station-to-station, person-to-person, etc., there would be the following charges to be quoted:

1. To the toll stations in the exchange—The standard rate.

2. To a business station—The standard rate plus the business "other line" charge.

3. To a residence station—The standard rate plus the residence "other line" charge.

4. To a rural station—The standard rate plus the rural "other line" charge.

There can be no question that the addition of "other line" charges to the standard toll rates will greatly complicate the administration of these schedules. In extreme cases, such as we have just mentioned, it would be impractical for an exchange other than the checking center to attempt to quote the proper rate and to determine the charges on a mssage to an exchange having such a diversity [fol. 176h] of charges.

We make this statement because we do not believe it is possible to compile in a form readily accessible and easy of interpretation all the necessary information pertaining

to all the combinations of rates that might obtain through the institution of "other line" charges.

The present standard toll schedules are based upon the cost of rendering service under certain conditions, including the cost of operators' salaries per message and the cost incident to the holding time of circuits in completing calls. Any changes which will materially increase these costs may result in the necessity for increased toll rates.

If the principle of "other line" charges were to be recognized, the problem of the apportionment of the exchange costs of service between local and toll business would be a very complicated one. As bearing upon this matter we would quote from our decision—"In the Matter of the Application of the Rock County Farmers Telephone Company for a Division of the Proceeds of Toll Messages Between the Toll Lines of the Wisconsin Telephone Company and the Lines of Applicant and Petitioner. (See Commission's decision of August 4, 1924.)

"In so far as the application of the Rock County Farmers Telephone Company is concerned, there is only a single issue before us—that is, whether or not the making of toll rates on such a basis that they carry the cost from toll switchboard to toll switchboard only is a proper basis, or whether those rates should be so made that they carry the cost from subscriber's station to subscriber's station. The present toll rates of the Wisconsin Telephone Company are based upon the theory that the toll message rate should carry the cost from toll switchboard to toll switchboard and that the use of the local lines and equipment in delivering the message from toll switchboard to subscriber's stations is the same sort of use that is involved in regular exchange service, such, for example, as that furnished in the delivery of a telegraph message from the telegraph office to the subscriber's station.

"Some argument may be made in support of either basis of fixing toll rates which appeals to the individual presenting the argument. The present system amounts to placing in the exchange rates paid by telephone subscribers a small readiness to serve charge for the privilege of connection with toll service. It is a system which has been in use throughout this state and from such information as we

have we believe it is in quite general use throughout the country.

[fol. 176i] "There is no showing in this case which would warrant us in overthrowing it and it is our opinion that it constitutes a proper basis for fixing toll rates and it is, in fact, the basis on which we have established the exchange rates in every case which has come before us and on which we have conducted such investigation as we have made of the toll rate situation.

* * * * * * *

"If the basis asked by the petitioner were adopted and carried to its logical extreme, the Commission would be required in every telephone exchange rate case to divide the expense between the local system and the toll system, to make an apportionment of the property, and to make detailed traffic studies. The result of this would be that it would be virtually impossible with the facilities at the command of the Commission to establish proper exchange rates in the great number of cases which come before it. This is not a reason, of course, for continuing the present system if that system is wrong, but we see no reason why the principle that the exchange subscriber should pay a small standby charge for the use of the toll system is any different from the principle that the power user should pay a standby charge for the privilege of receiving electric service and such standby charges are almost universal in electric power rate schedules. Similar charges are present in many schedules for water and gas service."

No evidence has been introduced by the applicant in support of the principle of the "other line" charge. True, it has requested permission to make an "other line" charge, but its entire argument in support of its request relates to the need of additional revenues. If our analyses are right, the proper solution of this matter does not lie in the petitioner's application of an "other line" charge but rather in the correct use of its present returns from operation, and possibly in an adjustment of the present exchange rates.

After again carefully considering the whole matter of "other line" charges we are still of the opinion that the

proper basis upon which to make toll rates includes only such costs as pertain to the transmission of messages from toll board to toll board, and that it is impracticable to include in the toll charges any item of expense connected with the transmission of the toll messages over local exchange lines. These costs should, we believe, be reflected in the amount paid by the subscriber for local exchange service. [fol. 176j] The petition of the Marathon City Telephone Company is therefore dismissed.

Dated at Madison, Wisconsin, this 3d day of November, 1925.

Railroad Commission of Wisconsin. (Signed) A. R. McDonald, (Signed) Lewis E. Gettle, (Signed) Adolph Kanneberg, Commissioners.

K:BEM:MB.

[fol. 177] EXHIBIT F. Mc. #4

BEFORE THE RAILROAD COMMISSION OF WISCONSIN

In the Matter of the Application of the WISCONSIN TELEPHONE COMPANY for Authority to Increase Its Rates at Its Marinette Exchange

To all to whom these presents shall come:

I, Wm. M. Dinneen, Secretary of the Railroad Commission of Wisconsin, do hereby certify that I have compared the annexed copy of the decision and order with the original decision and order of the Railroad Commission of Wisconsin in the above entitled matter, now on file in the office of said Commission and required by law to be in my custody, and that the same is a true copy of such original decision and order and of the whole thereof.

In witness whereof I have hereunto set my hand and affixed the seal of said Commission at its office in the Capitol, in the City of Madison, this 5th day of January, A. D. 1931.

Wm. M. Dinneen, Secretary Railroad Commission of Wisconsin.

[fol. 177a] BEFORE THE RAILROAD COMMISSION OF WISCONSIN

U-3899

In the Matter of the Application of the WISCONSIN TELEPHONE COMPANY for Authority to Increase Its Rates at Its Marinette Exchange

The application in this case was filed with the Commission on November 1, 1929, and states that the rates at present in force at the Marinette exchange do not permit the petitioner to earn a reasonable rate of return. The present and proposed rates are as follows:

Present Rates

Business Service:

	Net rates per month
One-party business	$4.00
Two-party business	3.50
*Extension business telephone	1.00

Residence Service:

One-party residence	2.25
Two-party residence	1.90
Four-party residence, divided ringing	1.75
*Extension residence telephone	0.75
*Additional charge for each one-eighth mile of line or fraction thereof on stations located outside of the building in which main station is installed	.40

Rural Service (outside base-rate area):

Rural party line station within 6 miles from Central Office (Wall Set)	2.00
Additional charge for each one mile of line or fraction thereof beyond	0.25

Charitable Institutions:

One party	Same rate as one-party residence
Extension telephone	Same rate as residence extension

Joint User:

The use of subscriber's telephone with consent of subscriber and the company and listed in the directory	1.00

[fol. 177b] Private Branch Exchange Service

(Private Branch Operator to be Furnished by the Subscriber)

Business—Cord and Cordless Switchboards:

	Rate per month—net
Cord switchboard with operator set, with not to exceed 15 jacks and signals, battery included	$6.00
Each additional group of 5 jacks and signals or fraction thereof	.40
Cordless switchboard, battery included, equipped for not more than 3 trunks and 7 stations	4.00
Both-way trunk	Same rate as one-party business
Generator circuit	3.00
*Each station in same building with switchboard	1.00
*Additional charge for each one-eighth mile of line or fraction thereof on stations located outside of building in which switchboard is installed	.40

Business—Intercommunicating No. 2 System:

Both-way trunk	Same rate as one-party business
Receiving station	1.50
Each station in same building with receiving station	1.50
Each station outside of building, but located on same premises and at a distance not exceeding 300 ft. from receiving station	2.25
Battery circuit	1.67

Residence—Intercommunicating No. 2 System:

Both-way trunk	Same rate as one-party residence
Receiving station	1.50
Each station in same building with receiving station	1.00
Each station outside of building, but located on same premises and at a distance not exceeding 300 ft. from receiving station	2.00
Battery circuit	1.00

Hotel Cord Switchboard:

Both-way trunk, monthly guarantee of net revenue in local calls to equal one-party business rate.	
Switchboard, including battery and operator set, each position	6.00

	Rate per month—net
Generator circuit	3.00
Each station on hotel premises	.50

Outgoing messages, 5¢ each, of which the hotel receives 50%.

The company will install and maintain the wiring system between the switchboard and the stations on the premises at the expense of the hotel.

Public and Parochial Schools:

One party	Same rate as one-party residence
Party-line	Same rate as residence rate for class of service contracted for
Extension telephone	Same rate as residence extension

Newspapers:

One party	Same rate as one-party residence
Extension telephone	Same rate as residence extension

[fol. 177c] Proposed Rates

Business Service:

	Net rate per month
One-party business unlimited	$4.50
Two-party business unlimited	4.00
*Extension business telephone	1.00

Residence Service:

One-party residence unlimited	2.50
Two-party residence unlimited	2.25
Four-party residence unlimited	2.00
*Extension residence telephone	.75
*Additional charge for each one-eighth mile of line or fraction thereof, route line, on stations located outside the building in which the main station is installed	.40

Rural Service (Outside Base Rate Area—Wall Set):

*Rural business unlimited within 6 mile-, air line, from central office	3.00
*Rural residence unlimited within 6 miles, air line, from central office	2.00
*Additional charge for each one mile, air line, or fraction thereof beyond	.25

P. B. X. Service (Private Branch Operator to be Furnished by Subscriber)

Business—Cord and Cordless Switchboards:

	Net rate per month
Cordless switchboard, including battery and operator's set (Capacity 3 trunks, 7 stations)	5.00
Cord switchboard—Non-multiple per position including battery and operator's set:	
1—30 lines	12.00
30—80 lines	15.00
Over 80 lines	20.00
Cord switchboard—Multiple per position including battery and operator's set	30.00
Multiple jacks in excess of 1 per line, per strip of 10	.30
Both-way trunks	Same net rate as one-party business plus 50%
Generator circuit	3.00
*Each station in same building with switchboard	1.00
*Additional charge for each one-eighth mile or fraction thereof, route line, on each circuit to stations located outside of building in which switchboard is installed	.40

Business—Intercommunicating No. 2 System:

(Maximum capacity 10 trunks and stations combined)	
Switching devices, each	1.50
Both-way trunks	Same net rate as one-party bus. plus 50%
Battery circuit	1.67
*Each station in same building	1.00
*Additional charge for each one-eighth mile or fraction thereof, route line, on each circuit to stations located outside of building in which switchboard is installed	.40
Installation charge equal to cost in excess of $5.00 per station.	

Residence—Intercommunicating No. 2 System:

(Maximum capacity 10 trunks and stations combined)	
Switching devices, each	1.50
Both-way trunks	Same net rate as one-party res. plus 50%
Battery circuit	1.00

	Net rate per month
*Each station in same building	.75
*Additional charge for each one-eighth mile or fraction thereof, route line, on each circuit to stations located outside of building in which switchboard is installed	.40

Installation charge equal to cost in excess of $5.00 per station.

[fol. 177d] Hotel Cord Switchboard:

Cord Switchboard—Non-multiple per position including battery and operator's set:	
1—30 lines	$12.00
30—80 lines	15.00
Over 80 lines	20.00
Cord switchboard—Multiple per position including battery and operator's set	30.00
Multiple jacks in excess of 1 per line, per strip of 10	.30
Both-way trunks	Monthly guarantee of net revenue in local calls to equal one-party business rate plus 50%
Generator circuit	3.00
Each station on hotel premises	.75

Outgoing messages, 5¢ each, of which the hotel receives 30% over the guarantee. The company will install and maintain the wiring system between the switchboard and the stations on the premises at the expense of the hotel.

Joint User:

Joint User Service—Not more than one joint user on an individual line or on each P. B. X. system with one trunk and not more than two joint users on two or more individual lines in sequence or on each P. B. X. system having two or more trunk lines in sequence.

Flat rate, on individual business line	½ one party bus. rate
on P. B. X.	⅓ P. B. X. trunk rate
in each case to nearest	$.25

Public and Parochial Schools:

Individual or party line	Business rates
Extension telephone	Business extension rate

Newspapers:

Individual or party line	Business rates
Extension telephone	Business extension rate

Charitable Institutions:

Individual or party line	Business rates
Extension telephone	Business extension rate

Hearing was held in Madison on May 19, 1930, and in Marinette on July 25, 1930. J. F. Krizek and F. M. McEniry appeared for the Wisconsin Telephone Company and C. F. Kuchenberg, City Attorney, and R. P. Murray, Mayor, for the City of Marinette.

The company introduced exhibits dealing with the revenue situation and purporting to show that with the proposed increase in rates the company would still be earning less than a reasonable return upon the book value of the property. These exhibits are based upon the number of subscriber stations in service as of December 31, 1929, revenue earned during the 12 months ending December 31, 1929, and upon property and plant as of the same date.

[fol. 177e] The representatives of the city dwelt at some length upon the division of revenue between the local exchange and the toll system, attempting to show that some proportion of the toll revenue should be credited to the local exchange. However, the present method of accounting has been examined and approved by the Commission in the past and we can see no occasion for a change. Under the present method the fixed rental of the local subscriber is just what it would be if his local exchange were isolated and he has the advantage of knowing that, if occasion should arise, he can call distant points, at no additional cost except as he uses the toll service. If, as the city advocates, a proportion of the toll revenue were credited to the local exchange this would have to be done for all exchanges in the state and, since the toll system does not show excessive earnings, there would then be two alternatives. One would be to assess against each local exchange a corresponding proportion of the investment and expenses of the toll system which would nullify the benefit of the additional revenue. The other would be to increase the toll rates and if this were equitably done it would increase the toll revenue from a given exchange by the same amount as was credited to it. Neither

alternative would reduce the total burden to be borne by the subscribers of the exchange in question but at the most only shift a larger proportion onto the subscribers actually using toll service. Since, as pointed out above, these subscribers are already carrying the costs of the toll system in addition to paying their share of the local exchange costs, while the subscribers not using the toll system have, at no cost, the advantage of the right of being connected to it, such a shift would be uncalled for.

The company introduced an exhibit showing that during the period for which a detailed check was made, only 15.7 per cent of the subscribers in Marinette used the free toll service to Harmony Corners at all and even fewer used it regularly. Under these conditions it seems only fair that the subscribers who actually use the service should pay for the same. We find, therefore, that it is reasonable and equitable that the company should apply its standard authorized toll rates to the service from Marinette to Harmony Corners.

The property and plant shown as of December 31, 1929, is $206,784.04, which seems to be a reasonable figure to use. To this should be added the general office pro-rate and district pro-rate shown in the company's exhibit of respectively $9,006.00 and $1,456.00, making a total of $217,246.04.

[fol. 177f] Exchange service revenues for the twelve months ending December 31, 1929, were $66,547.37 and miscellaneous operating revenue $2,741.71 making a total operating revenue of $69,289.08.

Operating expenses before provision for return, as claimed in the company's exhibit, amounted to $65,501.07. We see no reason to question any of the items of expense incurred or claimed as shown in the exhibit except the items of maintenance, $17,312.40, depreciation $14,067.29, and Licensee Revenue Debtor, $987.70.

The company admits that the maintenance expenditures during 1928 and 1929 were very high and therefore used the average experience of the past five years, namely $6.87 per station, as the anticipated maintenance cost. There is no doubt that the inclusion of two years of abnormally high maintenance makes this figure unduly high. The average cost for the ten years ending December 31, 1929, was $6.01 per station. There is further to be considered the fact that the company has just expended large sums of money to put

a large part of its wire-plant under ground. This change should substantially reduce the future costs of maintenance. A study of the 1929 experience of the Wisconsin Telephone Company at a number of its other exchanges of comparable size and characteristics shows an average maintenance cost of $5.46 per station or 6½% of the book value. We, therefore, believe that $5.50 per station is an adequate provision for maintenance in this case. On the basis of 2,584 stations this makes the requirement for maintenance $14,212.00 which is 6.9 % of the book value of the property.

As we have done in previous cases involving rates of Wisconsin Telephone Company, we have computed the required charge to operating expenses for depreciation on a 5% sinking fund basis which gives us a total of $9,451.85 instead of $14,067.29 as claimed.

As in previous cases, the allowance for payments to the American Telephone and Telegraph Company will be .6 of 1% of the telephone revenue. Before the allowance for "Licensee Revenue—Dr.", therefore, we have the following expenses:

[fol. 177g] Maintenance	$14,212.00
Depreciation	9,451.85
Traffic	14,737.23
Commercial	7,423.82
General & Miscellaneous	3,599.87
Uncollectible Operating Revenue	87.90
Taxes	6,228.76
Rents	1,056.60
	$56,798.03

It appears that the additional requirements for state and Federal income taxes on the increased revenue will amount to $509.31. This amount should be added to the $56,798.03 shown above, bringing the total expense before return and before payments to the American Telephone & Telegraph Company to $57,307.34.

On the book value of $217,246.04 full provision for return would amount to $17,379.68 bringing the total expense before "Licensee Revenue—Dr." to $74,687.02. This would amount to 99.4% of the total required revenue, which would indicate a total revenue requirement of $75,137.85.

The company has assumed, in making its estimates of in-

creased revenue, that there will be a rather substantial redistribution of residence subscribers resulting in a smaller number taking the two-party service and an increased number taking the four-party service. We have had occasion to check such estimates in connection with other cases and have found very little evidence of such tendency toward the lower classes of service. We are inclined, therefore, to base the estimate of increased revenue on the classification of subscribers as of December 31, 1929. Application of the proposed rates to the various classes of service indicates an increase of $9,403.20.

The revenue for the twelve months ending December 31, 1929, was $69,289.08. As far as we can judge, therefore, the proposed increase, if applied during the same period, would have produced revenues of $78,692.28 or $3,554.43 over the estimated requirements.

We find therefore that the schedule of rates which the company proposes to place in effect is not fully justified but that, except as other and different rates are provided in this order, the schedule should be approved.

It is therefore ordered that the applicant, Wisconsin Telephone Company, may place in effect at its Marinette Exchange for service rendered on and after the first billing date after the date of this order, the schedule of rates proposed by it in its application in this case, except that for the classes of service hereinafter enumerated, the rates [fol. 177h] provided in this order shall be substituted for those proposed in the application:

Business:

	Net rate per mo.
1 party	$4.25
2 "	3.75
PBX trunk (including hotel guarantee)—Same rate as one party business.	
Residence:	
One-party	2.50
Two "	2.15
Four "	1.90
PBX trunk—Same rate as 1 party residence.	

Charitable Institutions:	
One-party lines	One-party residence rates
Extension telephones	Res. Extension rates
Public & Parochial Schools:	
One-party lines	One-party residence rates
Extension telephones	Res. Extension rates

It is further ordered that the Wisconsin Telephone Company may place in effect its standard authorized toll rates for toll service from Marinette to Harmony Corners.

Dated at Madison, Wisconsin, this 3rd day of January, 1931.

Railroad Commission of Wisconsin. Adolph Kanneberg, P. H. Porter, A. R. McDonald, Commissioners.

GCM:KVH:EO.

[fol. 178] In United States District Court

[Title omitted]

Affidavit of J. F. Krizek

State of Wisconsin,
Milwaukee County, ss:

J. F. Krizek being first duly sworn on oath deposes and says:

That he is the General Attorney of Wisconsin Telephone Company, the complainant in this matter, and one of the attorneys of the complainant in the matter before the Pub-[fol. 179] lic Service Commission of Wisconsin entitled, "in the matter of the State Wide Investigation on the Commission's own motion of the rates, rules, services, practices, and activities of the Wisconsin Telephone Company, 2-U-35"; and was also one of the attorneys of said complainant in the matter of application of the complainant to the Public Service Commission of Wisconsin for a revision of its exchange rates at its Madison exchange, the record of which case is designated as U-4034 before said Public Service Commission.

The deponent further says that he has personally attended most of the hearings before said Public Service Commission of Wisconsin in the two matters above referred to, has either heard or read all of the testimony and exhibits offered in said two matters prior to the order of the Commission of June 30, 1932, being Exhibit "B" to the bill of complaint herein and is familiar with the records in both said matters.

Deponent further says that at the time of the entry of said order of June 30, 1932, the only evidence that had been offered in the State-Wide Case, 2-U-35, before said Public Service Commission of Wisconsin was that presented by the Commission itself or by members of its staff at its order and direction and by some other witnesses hereinafter named and referred to at the request or direction of said Commission.

That the evidence offered in said matter, 2-U-35, as above referred to consists of testimony and exhibits given and introduced by the following named employees of the Commission:

John H. Bickley, Chief Accountant of the Public Service Commission of Wisconsin.

E. W. Morehouse, Chief of the Rate and Research Division of the Public Service Commission of Wisconsin.

Asel R. Colbert of the Accounting Division of said Public Service Commission of Wisconsin.

[fol. 180] Testimony and exhibits given and offered by the following named persons, some of whom were members of the Engineering firm of J. G. Wray and Company and others its employees, the same being done at the request of the Commission:

J. G. Wray, one of the partners of the firm of J. G. Wray Company, Chicago, Illinois.

Cyrus G. Hill, one of the partners of the Engineering firm of J. G. Wray and Company, Chicago, Illinois.

Edward Collins, employed by said J. G. Wray and Company.

L. T. Hayner, employed by said J. G. Wray and Company.

Testimony given and exhibits offered by the following named persons engaged to testify by said Public Service Commission of Wisconsin in said matter and qualifying or purporting to qualify as statisticians or economists:

A. G. Altmeyer, Secretary of the Industrial Commission of Wisconsin.

G. T. Gustafson, Jr., Statistician in the Wisconsin Department of Agriculture and Markets.

J. Ray Blough, Statistician with the Tax Commission of Wisconsin.

Harold B. Reyer, Chief Accountant of Income Tax Division of the Wisconsin Tax Commission.

Professor John R. Commons, Professor of Economics, University of Wisconsin.

Dr. Frederick C. Mills, Professor of Economics and Statistics, Columbia University.

Professor Frank A. Fetter, Professor of Economics, Princeton University.

Professor Jacob Viner, Professor of Economics, Chicago University.

Dr. Edwin R. A. Seligman, Professor Emeritus Columbia University and Professor in Field of Political Economy.

[fol. 181] Professor Wm. A. Paton, Professor of Economics and Accounting, University of Michigan.

Professor C. K. Leith, Chairman, Department of Geology, University of Wisconsin.

Dr. James C. Bonbright, Professor of Finance, Columbia University.

Professor S. H. Nerlove, Associate Professor of Business Economics, University of Chicago.

Deponent further says that said Public Service Commission introduced in and made part of said matter designated 2-U-35, the complete record in the complainant's Madison Exchange Rate Case above referred to and designated before said Commission as U-4034. That said application of the complainant for an increase and revision of its exchange rates at its Madison exchange referred to the rates, practices and activities of said complainant at only one of its ninety-six exchanges in the State of Wisconsin where complainant carries on its business and that the hearings in said Madison case, U-4034, and of all other proceedings therein, before said Public Service Commission of Wisconsin were fully completed before the State Wide proceeding 2-U-35 above referred to was begun and instituted by said Public Service Commission on its own motion.

Deponent further says that said order of said Public Service Commission of Wisconsin dated June 30, 1932, was made and issued by said Commission before the complainant was given opportunity to complete the cross-examination of John H. Bickley and E. W. Morehouse, employees of said Commission as above referred to with reference to exhibits and testimony given by them and utilized in connection with the decision of the Commission issued on June 30, 1932, above referred to and before opportunity was afforded to complainant to cross-examine Asel R. Colbert and L. T. Hayner, employees of the Commission who had testified at the direction of the Commission as above re-
[fol. 182] ferred to, on exhibits materially influencing said Public Service Commission's decision of June 30, 1932, above referred to.

Deponent further says that no notice was given to the complainant, Wisconsin Telephone Company, of contemplation by said Public Service Commission of intention to enter a temporary or emergency order such as that of June 30, 1932, above referred to or of any consideration of the subject matter thereof.

That no opportunity was afforded for any argument or presentation of the complainant, Wisconsin Telephone Company's position on any questions having to do with the merits of the said order of June 30, 1932, above referred to or any portion thereof except argument on motion for rehearing after said order was entered.

Deponent further says that said Public Service Commission's case in chief in said State Wide matter, 2-U-35, is not closed and said complainant, Wisconsin Telephone Company, was not afforded opportunity for any presentation of its own case in said matter at the time of the making and issuance of said Commission's order on June 30, 1932, as above referred to, or subsequent thereto.

(Signed) J. F. Krizek.

Subscribed and sworn to before me this 6th day of September, A. D. 1932. My commission expires March 11, 1934. (Signed) L. G. Barnes, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 183] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF MAYNARD A. COOK

STATE OF WISCONSIN,
Milwaukee County, ss:

Maynard A. Cook, being duly sworn, on oath deposes and says:

I reside at the Village of Winnetka, Illinois, and am a member of the firm of Sloan & Cook, Consulting Engineers, with offices located in Chicago, Illinois.

I am a gradute of Alma College, of Alma, Michigan, having received my A. B. Degree in 1909. I graduated from the Engineering Department of the University of Wisconsin in 1914 with a Degree of M. E. During my undergraduate work at the said university, and for a period of two years immediately after my graduation, I was employed by the firm of Sloan, Huddle, Feustel & Freeman, in engineering work in connection with valuation and operating problems of public utilities, including telephone companies. During the years 1917 to 1921, inclusive, I was employed in auditing and office management work, which was not particularly related to public utility matters, although for two [fol. 184] years of this period I was employed in the auditing department of the Federal Reserve Bank of Chicago, and gained considerable experience that has assisted me in my engineering work. In 1921, I entered the employ of Mr. William F. Sloan, an engineer engaged in valuation and other investigations of public utilities, and remained in that employment until January 1, 1931, at which time I became a partner of Mr. Sloan, doing business under the name of Sloan & Cook, which relationship has since continued and is now existing. During my employment as an engineer, as aforesaid, both before 1917 and after 1921, I was employed in many valuations and investigations of public utilities, most of them being telephone utilities. Attached hereto and marked "Exhibit M. A. C. No. 1" and made a part hereof, is a list of the utilities in connection with which such services were performed. In some cases, the work was performed for the company or for banks and in other

cases it was performed for public service commissions or municipalities, and the nature of the engagement in this respect is indicated in each instance on the said exhibit. Among the cases therein listed, I consider certain of them to be especially comparable as to the nature of plant and business with Wisconsin Telephone Company, and these cases are as follows: In each of the years 1921, 1923, and for each of the years 1924 to 1931, inclusive, a valuation was made of the property of Illinois Bell Telephone Company embracing telephone service in the City of Chicago, a large portion of which was done under my direct supervision; in the years 1922 and 1923, I was actively engaged on valuations made by our organization covering the property of the Cumberland Telephone and Telegraph Company in the entire State of Mississippi, and in 1922, I was actively engaged on a similar valuation covering the property of the same company in the whole State of Tennessee; in 1924, I was actively engaged on a similar valuation made by our organization of the toll lines in the State of Ohio [fol. 185] owned by Ohio Bell Telephone Company; and in 1925, a valuation of the entire property of the same Company was made by our organization, a large portion of which was done under my direct supervision. In 1924, we made a valuation of all of the property of the Chesapeake and Potomac Telephone Company in the States of West Virginia and Maryland, in which I was actively engaged in a supervisory capacity, and in each of the years 1925 and 1927, we made similar valuations of the property of the same Company in the District of Columbia, in which I participated in the same capacity. In 1924 and 1925, we made valuations of all of the property of the New England Telephone & Telegraph Company, located in the States of Massachusetts, Rhode Island, Maine, New Hampshire and Vermont, a large portion of which was under my direct supervision.

Since August 10, 1932, the firm of Sloan & Cook has been engaged in making a study of the valuation of the plant and equipment of Wisconsin Telephone Company as prepared by Mr. George F. Crowell, its Chief Engineer, as of July 1, 1932. I have given this work my full time since said date, and during a portion of the said period have supervised the work of nine employees of Sloan & Cook. Mr. William F. Sloan has devoted a large port of his time to the same work,

as is more particularly set forth in his affidavit verified this day.

During the said period, I have made a careful study of the methods and data used by said George F. Crowell in making his said valuation. I hereinafter present in some detail the scope of my examination of each portion of said valuation, and my comments thereon.

I have read the affidavit of George F. Crowell which was verified on July 27, 1932, and also his affidavit verified this day relating to the said valuations. Based upon my said studies and my personal knowledge of telephone properties [fol. 186] throughout the United States and Canada, I am of the opinion that the valuations determined by him as of January 1, 1932, and July 1, 1932, of the properties of Wisconsin Telephone Company used and useful in the rendition of its telephone service, are as a whole reasonable, sound and conservative, and that every doubt has been resolved by him in favor of the lower valuation.

With my assistants, I devoted a total of approximately eighteen man-days to a study of the correctness and the propriety of the use by said Crowell of labor units based on 1927 conditions in his valuation of property classified as "outside plant". In order to derive usable labor units for this class of plant under any other adequate methods would require the work of a large crew of engineers for several months. Therefore, my study was devoted to a summary of a large number of estimate analyses, which the Company had available, but which had been only partially summarized, covering projects completed during the years 1925 to 1930, inclusive. From a comparison developed by me, I was able to determine that the 1927 labor units of the Wisconsin Telephone Company were reasonably representative of conditions as experienced by the Wisconsin Telephone Company during the years 1925 to 1930, inclusive. The records of the Company indicate that construction wage rates in 1927 were substantially lower than in 1932, and also in the intervening period. If present day labor unit costs were used, a higher valuation would result.

In the valuation of buildings, I carefully checked the method used in determining the reproduction cost new, but did not undertake to study the valuation of buildings on the basis of reproduction cost less depreciation, as I am informed and believe that this study has been undertaken by representatives of The American Appraisal Company. I

determined that the indices contained in the Engineering News Record were properly and appropriately applied in determining the reproduction cost new of all of the building [fol. 187] of the Company. From my own knowledge of values and indices and recognized engineering practices in valuation work, I know that the indices of the Engineering News Record, as used by said Crowell, produce a lower valuation than other indices that might properly be applied.

My examination of the methods used by said Crowell in determining valuations of central office equipment convinced me that his valuation was made by the use of proper methods, and that his result was a fair and reasonable valuation of said class of property.

In my examination of the methods used by said Crowell in his valuation of station apparatus, I have noticed two facts, each of which has resulted in his understating the valuation of said class of property. The indices used by said Crowell for said property were based upon types of instruments now sold and show a decline on July 1, 1932, from 1928 values of approximately 17%. The property of Wisconsin Telephone Company includes a large number of telephone instruments known as "desk stands," the volume of sales of which is relatively small, and the weight which those instruments have in the price trend index used by said Crowell is very much less than the weight which those instruments have in the station apparatus of the Wisconsin Telephone Company. The cost of desk stand instruments has not been reduced since 1928 although materially decreased from 1925 to 1928, and the application of the said indices to the property of the Company classed as "station apparatus" produced a lower valuation than would be the case were separate indices used for the said desk stand type of instrument. Another factor which was in the said valuation of station apparatus by said Crowell, and which resulted in lowering the same over what might be reasonably asserted, was the omission of any amount for the class of equipment known as "auxiliary equipment."

[fol. 188] In the valuation of station installations made by said Crowell, I have carefully examined the cost to Wisconsin Telephone Company of station installations for each of the years 1927 to 1932, and have ascertained that the use of 1930 station installation costs produced a lower result than would the use of costs derived from the average ex-

perience of the Company in said period or its experience in 1931 or 1932.

In the examination of the valuation methods used for private branch exchange equipment, certain minor differences in the methods used were noted in connection with the valuation of the manual type of equipment. These corrections taken separately would have the effect of lowering and increasing respectively certain items in the valuation reached by said Crowell, but in the aggregate would require, in my opinion, a reduction of his valuation by an amount not exceeding $10,000.

In the valuation made by said Crowell, material and supplies were valued according to the book investment, and as noted by said Crowell in his affidavit verified this day, certain items of stored and retired equipment amounting to nearly $200,000 were included. However, the total valuation of materials and supplies, including the above, used by said Crowell and derived from the investment therein is conservative when compared with that which might reasonably be expected according to recognized valuation practices for telephone companies. This is further referred to in the next paragraph in connection with working capital.

In the valuation by said Crowell, working capital was taken at 1% of complainant's investment in plant and equipment. This amount was checked against amounts obtained by other methods which have been approved in valuation cases for determining working capital of telephone companies. These methods usually involve the determination of an amount for working capital and materials and supplies taken together, and I have made comparison [fol. 189] of the valuations by said Crowell of both of said items together with the totals properly allowable under recognized practice. One method which is frequently used is to determine a reasonable allowance for materials and supplies based upon the Company's experienced requirements, together with the amount necessary to cover operating expenses for a six weeks' period. I determined this amount by a study of the past three and a half years of the Company's records on these matters, and found that a proper allowance for working capital and materials and supplies on July 1, 1932, would be $1,480,000, as compared to a valuation of $1,201,423, used by said Crowell for said items on said date. Other recognized methods indicate the propriety of even higher amounts.

With reference to the valuation of the item of interest during construction, it is my opinion that the amount used by said Crowell is a fair and reasonable amount for such item. In a valuation made where available time permitted, it would be proper to compute the said interest on the basis of the actual amount of money required for a given period of time for each portion of the construction, but this method of valuation would require a large amount of time, and in my opinion would not produce a result substantially different from that reached by said Crowell.

I have given consideration to the method used by said Crowell in arriving at said going value, and have noted that he determined going value at 10% of the reproduction cost on July 1, 1932, of the physical property. I consider that a minimum measure of going value would be the cost of establishing the business of a company and should include the amount required for carrying charges, covering interest, depreciation and maintenance, on plant completed and ready for service in excess of that plant required for subscribers, which can be immediately attached on completion, and also the amount required for training operators [fol. 190] and other personnel, for production of the first directory, assuming the receipt of some advertising revenues, the preparation and designing of forms, records and methods, and the operating expenses over the normal expenses during the period required for acquiring the number of subscribers which the plant is designed to serve. For going value as thus defined, studies in other cases have indicated that such costs equal 9% to 15% of the reproduction cost new of physical property.

I have made test checks of quantities used by said Crowell in his said valuation against the plant measurement records of the Company, and have found that the quantities thus used by said Crowell agree with the said records. I have also checked the various indices used by said Crowell against my own experience and the data which has been gathered over a period of years and recently by my firm, and found the said indices to be fair and conservative. I have checked the labor rates of the Wisconsin Telephone Company as used by said Crowell against those used by other companies and have found them fair, reasonable and conservative. I have checked the so-called "loading" for supervision and other items of overhead which are con-

tained in said valuation by said Crowell and have found them fair, reasonable and representative of the amounts which should be included under reproduction conditions. I did not check the said valuation as to its arithmetical accuracy.

I have made an over-all review of the valuation determined by said Crowell for all of the plant and equipment of said Company by comparison on a per station basis with data and indices derived from various sources and in the possession of my firm, and by this method have found his valuation to be reasonable and conservative.

From my own knowledge of the trend of prices of materials and equipment required for telephone plants both in [fol. 191] recent years and at the present time, I believe that the downward trend which existed at the end of 1931 and the early part of 1932 has been halted and that there are definite signs at the present time of an upward trend.

I have given consideration, based upon my knowledge and experience of telephone properties, to the length of time it would take to reproduce economically the entire plant of the Wisconsin Telephone Company and am of the opinion that a period of about five years would be required for such reproduction to be made at a minimum cost.

My studies as hereinbefore described have been largely devoted to a verification and analysis of the valuation of the property by said Crowell on the basis of reproduction cost new. During these studies, Mr. William F. Sloan has devoted his time and that of seven men under his and my supervision to a study of the present condition of the property in order to judge the valuation by said Crowell on the basis of reproduction cost new less depreciation, and the conclusions thereon are presented by said Sloan in his affidavit verified this day.

In the work hereinbefore described as performed by Mr. Sloan and me, we have used the services of nine men besides ourselves, and the total amount of time devoted to the work has been more than one hundred fifty man-days.

(Signed) Maynard A. Cook.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 192] EXHIBIT M. A. C. #1

List of Engagements Covering Valuations or Other Investigations in Which Maynard A. Cook Assisted Directly or Supervised

Telephone Utilities

Interstate Independent Telephone Company in 1913 for the Company.

Kewaunee Home Telephone Company in 1913 for the Company.

Montgomery County Telephone Company, Hillsboro, Illinois, in 1915, for the Company.

Home Telephone Company of Joplin, Webb City exchange, in 1915 for the Company.

Peoples Home Telephone Company, Leavenworth, Kansas, in 1915 for the Company.

Vermilion County Telephone Company, Danville, Illinois, in 1915, 1922 and 1925 for the Company.

Eastern Illinois Independent Telephone Company, Kankakee, Illinois, in 1916 for the Company.

Cumberland Telephone and Telegraph Company, Louisville, Kentucky in 1920 for the City.

Illinois Bell Telephone Company, City of Chicago, in 1921, 1922, 1923, 1924 and 1931 for the Company.

Cumberland Telephone and Telegraph Company in the State of Mississippi in 1922, also 1923 for the Company.

Cumberland Telephone and Telegraph Company in the State of Tennessee in 1922 for the Company.

Ohio Bell Telephone Company, Dayton Ohio, in 1922 for the Company.

Murphysboro Telephone Co., Murphysboro, Ill. in 1923 for Company (Ill. South. Tel. Co.).

Ohio Bell Telephone Co., Toll Lines in State of Ohio in 1924 for Company.

Montgomery County Tel. & Tel. Co. at Hillsboro, Ill. and Christian County Tel. Co. of Taylorville, Ill. in 1924 for purchasing company (Ill. Consolidated Tel. Co.).

Chesapeake and Potomac Telephone Co. of West Virginia in 1924 for Company.

Chesapeake and Potomac Telephone Co. of Baltimore City, in State of Maryland, in 1924 for Company.

Chesapeake and Potomac Telephone Co. in District of Columbia in 1925, 1927.

Litchfield Telephone Company, Litchfield, Illinois, in 1924 for Ill. Consolidated Telephone Co.

Mississippi Valley Tel. Co., Carthage, Ill. in 1924 for Company.

New England Tel. & Tel. Co. in Mass. in 1924 and 1925 for Company.

New England Tel. & Tel. Co. in Rhode Island in 1925 for the Company.

New England Tel. & Tel. Co. in Maine, New Hampshire and Vermont in 1925 for the Company.

Ohio Bell Telephone Company in Ohio—all property 1924 and 1925 for the Company.

Monmouth Telephone Company, Monmouth, Ill., 1925 for Ill. Northern Tel. Co.

[fol. 192a] Kinloch—Bloomington Telephone Co., Bloomington, Ill., 1925 for Company.

Cincinnati and Suburban Bell Telephone Co., Cincinnati, Ohio, 1925, for Company.

Baker Telephone System, McLean, Ill., 1925, for Company.

Crown Point Telephone Co., Crown Point, Indiana, 1925, for Company.

Illinois Southeastern Telephone Company, Mattoon, Ill., 1925, for Company.

Consolidated Telephone Co., Moultrie, Georgia, 1926, for Company.

Rock River Telephone Company, Rochelle, Ill., 1926, for Company.

Mutual Telephone Company, Erie, Pa., 1926, for Company.

La Porte Telephone Company, La Porte, Ind., 1926 for bankers.

Liberty Telephone Company, Liberty, Ind., 1926 for bankers.

The New Brunswick Telephone Co., L't'd St. John, N. B., 1927 for the company.

Illinois Southern Telephone Co., Murphysboro, Ill., 1928 for the Company.

United Telephone Co. of Delaware, 1928, for the bankers.

United Telephone and Electric Co., Kansas and Missouri, 1925, for the bankers.

Illinois Southeastern Telephone Co., Mattoon, Ill., 1928, for the Company.

DeKalb-Ogle Tel. Co., Sycamore, Ill., 1927, for the Company.

Watseka Telephone Company, Watseka, Illinois, 1927, for the Company.

Standard Telephone Company of Delaware, 1928, for bankers.

Effingham County Telephone Company, Altamont, Illinois, 1928 for Company.

The United Telephone Company, Abilene and McPherson Exchanges, 1928 and 1930, for Company.

Calhoun County Telephone Company, etc., Pittsfield, Ill., 1928, for Company.

United Telephone Company, Monroe, Wisconsin, (2 exchanges only) 1928, for Company.

Southwestern Bell Telephone Company, San Antonio, Texas, 1928, for Company.

Cumberland Valley Telephone Company, Harrisburg, Pa., 1928, for bankers.

Susquehanna Valley Telephone Company, Williamsport, Pa., 1928, for bankers.

Fayette Home Telephone Company, Lexington, Kentucky, 1928, for bankers.

Ashland Home Telephone Company, Ashland, Kentucky, 1928, for bankers.

Group of Telephone Properties in No. Carolina, So. Carolina, Ga., Fla., and Ala., 1928, for bankers.

Dixon Home Telephone Company, Dixon, Illinois, 1928, for bankers.

Illinois Northern Telephone Company, Macomb and Astoria Exchanges, 1928, for Company,

Michigan Home Telephone Company, Muskegon, Michigan, 1929, for Company.

Bluefield Telephone Company, Bluefield, W. Va., 1929, for bankers.

Texas Associated Telephone Company, various Texas points, 1929, for Company.

Pitcher Telephone Company, Freeport, Illinois, 1929, for Company.

Alberta Government Telephones, 1929, for Government.

[fol. 192b] Clifton Forge Mutual Telephone Company, Staunton, Virginia, 1929, for bankers.

Waynesboro Mutual Telephone Company, Staunton, Virginia, 1929, for bankers.

Illinois Commercial Telephone Company (certain exchanges) 1929, for Company.

Tri-State Telephone & Telegraph Company, St. Paul, Minn., 1929 and 1932, for Company.

Indiana Associated Telephone Company, Elkhart, Ind., 1930, for Company.

Empire Telephone Company, Tallahassee, Fla., etc., 1930, for bankers.

Illinois Commercial Telephone Company—Chester Exchange, 1930, for Company.

State Telephone Company of Texas, 1930, for Company.

Ohio Cities Telephone Company, New Philadelphia, Ohio, 1930 and 1931, for Company.

Pioneer Telephone Company et al., Minnesota, 1930, for bankers.

Stephenson County Telephone Company, Freeport, Illinois, 1930, for Company.

Michigan Associated Telephone Company, Muskegon, 1931, for Company.

Associated Tel. Utilities—United Tel. Co. of Delaware Merger, 1930, for Companies.

Pennsylvania Telephone Corp.—Somerset, Pa., 1931, for Company.

Southwestern Associated Telephone Company, 1931, for Company.

Interstate Telephone & Telegraph Company, Indiana, 1931, for Company.

Highland Telephone Company & Inter-County Tel. Co., Highland, Ill., 1931, for Company.

United Telephone Company (2 exchanges), Monroe, Wisconsin, 1931, for Company.

Electric Utilities

Crookston Water Works Power and Light Company in 1914 for the City.

Indianapolis Light and Heat Company in 1914 for the Company.

East St. Louis and Suburban Company properties, East St. Louis, Illinois, in 1923 for the Company.

Narragansett Electric Lighting Co., Providence, R. I., 1926-1927 for R. I. Public Service Commission.

Gas Utilities

Public Service Company of Northern Illinois in 1915 for municipalities.

People's Gas Light and Coke Company, Chicago, Illinois, in 1916 for the Company.

[fol. 193] In United States District Court

[Title omitted]

Affidavit of William F. Sloan

State of Wisconsin,
Milwaukee County, ss:

William F. Sloan, being duly sworn, deposes and says:

I reside at 163 East Walton Place, Chicago, Illinois, and am fifty-three years of age. I am a member of the firm of Sloan & Cook, Consulting Engineers.

I graduated from Montana State College in 1903, and from the University of Wisconsin in 1904, in each case having pursued the course in electrical engineering. Prior to 1907, I was employed successively by Montana Power Company, Union Light & Power Company, of St. Louis, and Commonwealth Edison Company of Chicago, in engineering work. I was also employed by B. J. Arnold Company in Chicago, for about a year in connection with the appraisal of all of the transit properties in that city. In 1907, I entered the employ of the Wisconsin Railroad Commission, and continued in that position until 1913. During this period, I was in charge of all valuations made by said Commission of telephone utility properties and of many valua-[fol. 194] tions of electric utility properties. During this time appraisals were made by a force under my direct supervision of all properties of Wisconsin Telephone Company located in the City of Milwaukee, this work being completed in 1912 or 1913. Appraisals under my supervision were also completed during said period of telephone properties in Marinette, Superior, La Crosse, Columbus, Hortonville, and

other municipalities. Some of these properties are included in the present property of Wisconsin Telephone Company.

In 1913, I became a consulting engineer and have since been engaged in that work. Since then, I have made appraisals of telephone properties in all sections throughout the United States. These appraisals have covered properties in all of the states of the union except the following fifteen: Connecticut, New Jersey, Delaware, North Dakota, Arkansas, Louisiana, Oklahoma, Arizona, Utah, Nevada, Colorado, Montana, Idaho, Washington, and Oregon. I have made investigations of telephone properties in the provinces of Manitoba, New Brunswick and Alberta. I have read the affidavit of my partner, Maynard A. Cook, verified this day, and particularly Exhibit M. A. C. No. 1, containing a list of the valuation and investigation projects in which Mr. Cook has participated. In each of the engagements mentioned by Mr. Cook I have been personally familiar with and responsible for the work done with the exception of the following three engagements:

Public Service Co. of Northern Illinois.
East St. Louis and Suburban Co.
Peoples Gas Light & Coke Co.

I have conferred and counseled with said Cook in connection with his work, which is described in his said affidavit, and have personally investigated the work he has done and the work done under his direction. I have also read the affidavit verified by George F. Crowell this day.

[fol. 195] I concur in the conclusions and statements made by Mr. Cook in every respect, and in my opinion they are true and correct. I am of the opinion that the valuation of the plant and equipment of Wisconsin Telephone Company made by George F. Crowell as of July 1, 1932, stated in his said affidavit is a fair, reasonable and conservative valuation.

During the two weeks' period ended September 3, 1932, a physical inspection of the property of Wisconsin Telephone Company was made by me and by seven men of the technical staff of the firm of Sloan and Cook, under my supervision or the supervision of said Cook. During that time I personally spent eight days in actual inspection of the property and travelled over 1300 miles in said work. I personally inspected forty-eight exchange offices and two exclusively toll

offices of the telephone offices of Wisconsin Telephone Company located in thirty-nine cities and towns in Wisconsin, including all but one of the so-called No. 1 large common battery offices. I also inspected much of the outside plant at said thirty-nine cities and towns and nearly nine hundred miles of the toll lines. During this inspection, I personally saw plant and equipment of Wisconsin Telephone Company equal to what I believe is 85% of the value of the total plant and equipment of said Company. During the same period, the said men under my supervision made similar inspections of the property at 49 of said offices, which number includes 30 of the offices inspected by me personally. This inspection by me and the said men embraces the property of the said Company at 69 of its offices, and I am informed and believe that the said Company has 129 offices.

Many of the Company's offices embrace an entire exchange, while in some of the larger cities the entire system within the city is termed one exchange, although it may embrace several separate offices. Each office, as the term is herein used, embraces switch boards and other equipment necessary to the rendition of complete telephone service to subscribers.

[fol. 196] The said inspections were made for the purpose of determining the actual present condition of the said property, with a view to determining the existing depreciation and for the purpose of verifying or criticizing amounts arrived at by said Crowell as the valuation of said property on the basis of reproduction cost less depreciation.

From my personal inspection and the reports made to me by the men engaged in the inspections as aforesaid, I have determined the percentage, commonly known as "per cent condition," which is to be applied to the reproduction cost new of the property in order to determine the reproduction cost new less depreciation. In making this determination, I have considered the character and condition of the property, and all other factors affecting the capability of the property to render service as compared to new property.

The results of the said studies as to each class of plant are presented hereinafter as percentages for exchange and toll and for total of each class of plant, in Exhibit W. F. S. No. 1, hereto attached and made a part hereof. I have caused these percentages to be applied to reproduction cost new as of July 1, 1932, as determined by said Crowell, and stated

in his said affidavit, and have therefrom determined the reproduction cost new less depreciation of the physical plant and equipment of said Company used and useful in rendering its telephone service. A detailed presentation of these figures is set forth in Exhibit W. F. S. No. 2, hereto attached and made a part hereof. As thus determined, the reproduction cost new less depreciation of said property, (plus materials and supplies, working capital and going value, as determined by said Crowell) on July 1, 1932, was $77,395,933 as compared to the valuation determined by said Crowell for the same elements of $78,865,558. The relationship of the reproduction cost new less depreciation as determined by me as aforesaid to reproduction cost new of the said [fol. 197] physical property is 90.7% as compared to a similar percentage of 92.7% determined by said Crowell.

In making the said studies, I have not personally determined the per cent condition or the proper amount of depreciation to be applied to reproduction cost new of buildings owned by Wisconsin Telephone Company, as a study of this kind was made contemporaneously by American Appraisal Company. In determining the total value of property at reproduction cost new less depreciation, from reproduction cost new in Exhibit W. F. S. No. 2, I have used for buildings the per cent condition furnished to me by K. Lee Hyder of the American Appraisal Company. I have, however, in Exhibit W. F. S. No. 2, applied this percentage to the reproduction cost new of buildings determined by said Crowell and not to the amount determined by said The American Appraisal Company, which amount I am informed and believe is greater than that determined by said Crowell. In making my said studies and inspections of all of the property of Wisconsin Telephone Company, I observed the buildings, and based upon my personal knowledge of and experience with telephone buildings, I am of the opinion that the buildings of Wisconsin Telephone Company are very well built, designed and maintained.

(Sgd.) W. F. Sloan, William F. Sloan.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Dec. 11, 1932. (Sgd.) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 198] EXHIBIT W. F. S. No. 1

Per Cent Condition of Operating Property of Wisconsin Telephone Company on July 1, 1932

Class of property	Exchange	Toll	Total
Right of Way	100	100	100
Land	100	100	100
Buildings	90 2	97 8	91 3
Central Office Telephone Equipment	92	98	93 9
Other Equipment of Central Offices	85	85	85
Station Apparatus	90	90	90
Station Installations	90	90	90
Interior Block Wires	85	...	85
Private Branch Exchanges	90	...	90
Booths and Special Fittings	85	85	85
Pole Lines	80	87 5	84 1
Aerial Cable	85	95	87 6
Aerial Wire	85	95	90 7
Underground Conduit	95	95	95
Underground Cable	92 5	97 5	93 4
Submarine Cable	95	95	95
Office Furniture and Fixtures	85	85	85
General Store Equipment	85	85	85
General Stable and Garage Equipment	70	70	70
General Tools and Implements	75	75	75
Loud Speaker and Radio Equipment	85	...	85
Interest During Construction	...	...	...
Total Plant and Equipment	89 8	93 5	90 7

Sloan & Cook.

(Here follows Exhibit W. F. S. No. 2, side folio 199)

[fol. 199]

EXHIBIT W. F. S. No. 2

Valuation of Operating Property of Wisconsin Telephone Company as of July 1, 1932

Class of property	Exchange			Toll			Total		
	Reproduction cost new *	% condition	Reproduction cost new less depreciation	Reproduction cost new *	% condition	Reproduction cost new less depreciation	Reproduction cost new *	% condition	Reproduction cost new less depreciation
Right of Way	$237,423	100	$237,423	$296,895	100	$296,895	$534,318	100	$534,318
Land	951,765	100	951,765	113,102	100	113,102	1,064,867	100	1,064,867
Buildings	5,518,926	90.2**	4,978,071	973,164	97.8**	951,754	6,492,090	91.3	5,929,825
Central Office Telephone Equipt	10,360,561	92	9,531,716	4,917,459	98	4,819,110	15,278,020	93.9	14,350,826
Other Equipt. of Central Offices	326,691	85	277,687	49,561	85	42,127	376,252	85	319,814
Station Apparatus	3,968,980	90	3,572,082	40,797	90	36,717	4,009,777	90	3,608,799
Station Installations	2,031,462	90	1,828,316	2,322	90	2,090	2,033,784	90	1,830,406
Interior Block Wires	24,250	85	20,612	0	....	.....	24,250	85	20,612
Private Branch Exchanges	1,543,510	90	1,389,159	0	....	.....	1,543,510	90	1,389,159
Booths and Special Fittings	173,028	85	147,074	28,156	85	23,933	201,184	85	171,007
Pole Lines	5,428,215	80	4,342,572	6,638,119	87.5	5,808,354	12,066,334	84.1	10,150,926
Aerial Cable	3,784,058	85	3,216,449	1,311,421	95	1,245,850	5,095,479	87.6	4,462,299
Aerial Wire	1,954,412	85	1,661,250	2,543,816	95	2,416,625	4,498,228	90.7	4,077,875
Underground Conduit	8,440,888	95	8,018,844	533,422	95	508,651	8,976,310	95	8,527,495
Underground Cable	6,174,307	92.5	5,711,234	1,309,684	97.5	1,276,942	7,483,991	93.4	6,988,176
Submarine Cable	146,781	95	139,442	48,247	95	45,835	195,028	95	185,277
Office Furniture and Fixtures	524,574	85	445,888	628	85	534	525,202	85	446,422
General Store Equipment	10,319	85	8,771	142	85	121	10,461	85	8,892
General Stable & Garage Equipt	488,294	70	341,806	21,623	70	15,136	509,917	70	356,942
General Tools and Implements	401,004	75	300,753	14,718	75	11,038	415,722	75	311,791
Loud Speaker & Radio Equipment	13,066	85	11,106	0	....	.....	13,066	85	11,106
Interest During Construction	3,150,151	....	2,827,921	1,130,717	....	1,-56,889	4,280,868	....	3,884,810
Total Plant and Equipment	$55,652,665	89.8	$49,959,941	$19,975,993	93.5	$18,671,703	$75,628,658	90.7	$68,631,644
Material and Supplies	320,577		320,577	116,236		116,236	436,813		436,813
Working Capital	561,148		561,148	203,462		203,462	764,610		764,610
Going Value	5,565,267		5,565,267	1,997,599		1,997,599	7,562,866		7,562,866
Grand Total	$66,099,657		$56,406,933	$22,293,290		$20,989,000	$84,392,947		$77,395,933

* Reproduction cost new taken from Exhibit G. F. C. #1 of affidavit of George F. Crowell verified September 6, 1932.
** % Condition of buildings furnished by K. Lee Hyder, Assistant Vice President of the American Appraisal Company.

Sloan & Cook.

[fol. 200] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF K. LEE HYDER

STATE OF WISCONSIN,
Milwaukee County, ss:

K. Lee Hyder, being duly sworn, deposes and says:

I reside at 1111 North Astor Street, Milwaukee, Wisconsin. I am Assistant Vice-President and Manager of the Engineering Division of the American Appraisal Company, which has its principal office in Milwaukee, Wisconsin. I have been in the employ of that Company for fourteen years, and for the past nine years have been in charge of the execution and direction of various phases of engineering and appraisal work. I have held my present position for about five years. During my employment by the said Company, I have devoted about one-half of my time to field valuation work. I was Manager of the Architectural Department from 1920 to 1923 and for several years subsequent to the latter date, I directed all pricing work, both architectural and mechanical. As Manager of the Engineering Division, I have general supervision of engineering studies and reports relating to public utilities, industrial plants, condemnations, leaseholds, natural resources and intangibles.

[fol. 201] My education includes three years' study of civil engineering at Colorado College, Colorado Springs, Colorado; one year's study of architecture at the University of Pennsylvania, Philadelphia, Pennsylvania; three years' study of architectural design under direction of the Society of Beaux-Arts Architects, at Cincinnati and Detroit. I practiced as an architect in Denver, Colorado, Cincinnati, Ohio, and Detroit, Michigan, alone and with other architects during the entire period from 1910 to 1918, and thereupon entered the employ of the American Appraisal Company. I am a registered architect in the State of Michigan, a member of the Michigan Society of Architects, and a past President of the Cincinnati Architectural Club and of the Detroit Architectural Atelier. I have contributed articles on valuation and related matters to va-

rious technical magazines, including Midwest Banker, Building Investment, The Constructor, the National Real Estate Journal, and the Engineering News. I have just revised the manuscript proofs of an article to be published shortly in the Public Utilities Fortnightly.

During my practice as an architect as aforesaid, I was employed in various capacities in connection with the designing or construction of Vail Hotel at Pueblo, Colorado, West Court Hotel at Denver, Colorado, Union Central Life Building at Cincinnati, Ohio, General Unit of Cincinnati Hospital, at Cincinnati, Ohio, Miami Hotel of Dayton, Ohio, Bucknell Hotel, at Springfield, Ohio, an addition to Eastman Kodak Plant at Rochester, New York, the Peter Smith office building at Detroit, Hyatt Roller Bearing office building at Detroit and many other buildings.

During my employment with the American Appraisal Company, I have personally appraised a large number of buildings of various types in all sections of the United States, including the large group of hotels known as the [fol. 202] "Bowman Group," embracing eight hotels in New York City and other locations; a group of hospitals and hotels at Rochester, Minnesota, comprising properties of the Clinic of the Mayo Brothers; the various chains of theatres throughout the United States now operated or controlled by the Radio-Keith Orpheum Corporation; and many office and commercial buildings.

The American Appraisal Company is a personal service corporation which for over thirty-five years has been engaged exclusively in valuation work. Its principal office is at Milwaukee, Wisconsin, and it maintains district offices in twenty-six cities in the United States, Canada and Europe. Its work has included the appraisal of over 40,000 properties. It maintains complete departments for the accumulation of current valuation data and statistics, and publishes indices of prices developed under its own formulæ covering various classes of construction costs in different districts of the United States. A substantial portion of its appraisal work has been in connection with properties of public utilities, and the said engagements include appraisals of more than 130 telephone properties.

During the past ten days, the American Appraisal Company through a force of men working under my immediate

direction and control, have engaged in making an investigation and valuation as of July 1, 1932, of all of the buildings, including building fixtures, owned by Wisconsin Telephone Company, which said Company's engineers designate as used and useful in the rendering of telephone service. In this work, every building so designated has been personally inspected by competent employees of American Appraisal Company (with the exception of the new toll station at Prentice, Wisconsin, and a small toll station at Trout Lake, Wisconsin), the total number of buildings inspected being forty-eight. During this period, I personally examined nineteen of said buildings, and received from the said employees of the American Appraisal Company and reviewed [fol. 203] detailed reports, notes and working papers regarding said buildings with the exception noted.

I personally laid out the plan of procedure and the principles to be adopted in the valuation and passed upon the underlying data and unit prices used in the entire appraisal.

The investigation included the gathering of information relative to the character of construction and nature and extent of building construction and the building fixtures; the preparation of an estimate of the materials and labor which would be required in the reproduction of the property; the obtaining of cost data and the compiling of unit prices; the determination therefrom of the reasonable cost of reproduction new on July 1, 1932; the condition of the various property items and other factors for consideration in arriving at a conclusion as to the amount of depreciation which should be deducted from the cost of reproduction new to arrive at the cost of reproduction less depreciation.

Based upon my said personal inspection, the said reports, the data on building costs and conditions obtained in the various cities during this survey, and the statistical data on valuation, construction and prices in the files of the American Appraisal Company, I have determined that the reasonable cost of reproduction new of the said buildings on July 1, 1932, was $6,841,955, and that after deduction of depreciation as determined thereon, based upon loss in value through deferred maintenance, existing structural obsolescence, and all other factors affecting the capability of the property to render service as compared

with new property, the cost of reproduction new less depreciation on July 1, 1932, was $6,256,606.

The prices adopted in determining the cost of reproduction new have been established in accordance with the quo-
[fol. 204] tations for materials and the published union or standard scale of wages, all as of the date of July 1, 1932; with an allowance for normal contractor's overhead and profit.

In addition, an amount of eleven per cent has been added to cover a-chitect's fees and general incidental construction expenditures, including engineering and superintendence, administration and management during construction, law expenditures and building insurance during construction. This percentage has been adopted as reasonable and is in accordance with the general experience of The American Appraisal Company in the appraisal of telephone properties to cover normal construction overhead expenditures. No allowance has been made for other indirect construction costs, such as taxes and interest during construction, nor for any elements of intangible value.

The valuations do not reflect the distressed conditions in the building industry at the date of valuation which have resulted, temporarily I believe, in a reduction in actual labor rates below the normal scale and in many instances the virtual elimination of contractor's profit.

In the foregoing valuations, there have been included the valuations furnished me by the engineers of Wisconsin Telephone Company covering the said buildings which were not inspected by representatives of The American Appraisal Company, as follows:

	Cost of reproduction new	Cost of reproduction less depreciation
Toll station at Prentice, Wis., (which I am informed and believe is nearing completion)....	$31,524.00	$31,524.00
Toll station at Trout Lake, Wis.....	378.00	359.00

[fol. 205] In doing the work hereinbefore described, exclusive of my own time, employees of American Appraisal Company expended in excess of 200 man-days of more than eight hours each.

(Signed) K. Lee Hyder.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Dec. 11, 1932. Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 206] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF BERNARD E. SUNNY

STATE OF ILLINOIS,
Cook County, ss:

Bernard E. Sunny, being duly sworn, on oath deposes and says:

I reside at 4913 Kimbark Avenue, Chicago, Illinois. I have been familiar with the telephone industry for over fifty years. In 1879 I became superintendent of Chicago Telephone Company and occupied that position until 1888. I then became Western Manager of the Thomson Houston Electric Company, which in 1892 became the General Electric Company, and I remained in the employment of that company until 1908. It was engaged not only in the manufacture of electrical machinery, but in the building and operation of electric light and power and street railway plants, and in my twenty years of service therein I gained considerable and important experience in the business of utilities other than the telephone business. In 1908 I became President of Chicago Telephone Company, subsequently and now called Illinois Bell Telephone Company, and served as President of that company until 1922, when I became Chair-[fol. 207] man of the Board of Directors, which office I held until July 1, 1930. In 1908 I also became Chairman of the Board of Directors of Central Union Telephone Company. From 1911 until 1922, I was also President of Wisconsin Telephone Company, Cleveland Telephone Company and Michigan State Telephone Company, which with said Chicago Telephone Company and Central Union Telephone Company, constituted the so-called Central Group of the Bell telephone system. Thereafter for a period of eight years, I was Chairman of the Board of Directors of Wisconson Telephone Company and am still a director of that company. I am Chairman of the Board of Directors of Chicago Great Western Railroad. I am a director of First National Bank of Chicago, General Electric Company, International General Electric Company, Chicago City Railway, Chicago & Calumet Railway Company, North American Light & Power Company, Public Service Company of Northern Illi-

nois, Wilson & Company (meat packers), Electric Household Company (manufacturers of household electric machines), and Illinois Bell Telephone Company. I am a member of the Board of Operation of the Chicago surface (street railway) lines.

During the course of my business experience, as above recited, I have repeatedly had occasion to participate in the procurement of capital for public utility corporations, particularly for telephone companies, and am familiar with the problems relating to public utility financing.

It is my opinion that a public utility, such as the Wisconsin Telephone Company, should at the present time, earn an annual return of not less than eight per cent (after providing for depreciation) upon the fair and reasonable value of its property, used and useful in the rendition of its service in order to place its securities upon a parity with other investments competing for funds in the market; and that this [fol. 208] rate of return will be required for the ensuing year and a considerable time beyond then.

In making the above determination, I have taken into consideration, among other things, the following factors:

I have considered the rate of return in this part of the country on other business undertakings which are attended by corresponding risks and uncertainties, and in so doing I have considered largely the experience of other utilities, particularly those with which I have been familiar during a considerable period of years.

I have considered the rate of return which is reasonably sufficient to insure confidence in the financial soundness of a utility and adequate, under efficient and economical management, to maintain and support its credit and especially to enable it to raise the money necessary for the discharge of its duties as a public service corporation. It is an outstanding peculiarity of the public utility business that its business increases with the growth of the community and that its plant must be continually expanded to supply the growing requirements of the public, and that, owing to the necessity for providing service on demand as required by the community, it must be continously prepared to finance increases of its property.

The telephone exchange reflects the volume of business in a community; it is more active when business is good than it is in dull times. But a telephone company's organization

and facilities must be in readiness at all times, without advance notice, to care for the maximum demand for service. While this demand has been less during the business depression and some curtailment in construction work could safely be practiced, yet such curtailment can apply to only a limited extent. An influencing and important consideration is [fol. 209] the fact that adding to the telephone property, especially by putting in underground conduits, cables, buildings and central office equipment, consumes much time and requires that commitments be made a considerable time in advance of the date when such additions are required for use. To suspend enlargements substantially in periods of depression would expose the community to an inadequate telephone service on a returned business activity. While there is growth or a reasonable promise of growth in the commercial and domestic business of the community, the telephone construction must go on.

In addition, consideration must be given to the shifts of population that require adjustments to meet them, and also the abnormal highway and street construction activities designed to furnish employment for labor in times of depression, which require a telephone company to relocate and reconstruct its plant coincident with the public construction.

In this connection I have considered the fact that in good times some of the ably managed utilities of established reputation for effective service have procured a portion of their capital from the sale of bonds at from five to six per cent, paying a commission for the sale thereof in a varying amount, depending on conditions. However, for about a year and until within the present month, there has been no market whatever for new issues of bonds, other than governments and some municipalities, and few attempts have been made to sell them. Within the present month there has been a revival and some bonds of public utilities have been sold, but the rate paid for them has been high, entailing a cost on the utility company of upwards of 9% per annum on first mortgage bonds. It is questionable as to how long the present high cost of financing by bonds will prevail, and likewise as to what the future cost of financing is to be. [fol. 210] The Wisconsin Telephone Company for many years has obtained its permanent capital by stock issues exclusively, having outstanding a moderate amount of preferred stock and the remainder, common stock. It is unique

in the simplicity of its financial structure and it is the only utility of its size which I know of, which has no bonded indebtedness. Whether its capital consisted of stock, or stock and bonds, is, however, immaterial as affecting the rate of return.

I have given consideration to the fact that a minimum rate of return for telephone utilities should be sufficiently large to permit fluctuation in the volume of business resulting from general business conditions, and, in good times, to supply a surplus over and above the dividend requirements. I consider a record of building up such a surplus to be a vital necessity to any utility engaged in seeking to attract money for its financial requirements.

I have given consideration to the fact that the Wisconsin Telephone Company is part of a large system, organized for the purpose of maintaining the credit of the constituent companies and securing their efficient and economical management, and that the capital of the Wisconsin Telephone Company, exclusive of its capital which is provided by the issue of preferred stock, has been supplied to a large extent through the sale of common stock to American Telephone & Telegraph Company and that the said capital is supplied in turn by said American Telephone & Telegraph Company, largely through the sale of its own common stock to the investing public.

The losses to investors in stocks generally in the past two years has been tremendous and makes the outlook for financing through the issue of new common stock a most unpromising one. The buying power of thousands of investors has been destroyed forever and other thousands, [fol. 211] in many cases, will never again venture into the purchase of stocks. These conditions will result in a demand for higher rates of return on common stocks and higher prices for money thus invested.

(Signed) Bernard E. Sunny.

Subscribed and sworn to before me this 31st day of August, 1932. My commission expires August 14, 1933. P. J. Wimsey, Notary Public, Cook County, Illinois. (Seal.)

[fol. 212] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF ROBERT W. BAIRD

STATE OF IOWA,
Union County, ss:

Robert W. Baird, being duly sworn, deposes and says:

I reside at 7029 Milwaukee Avenue, Wauwatosa, Wisconsin, and am forty-nine years of age; I have been engaged in the business of investment banking for over twenty-five years.

I graduated from Northwestern University with the degree of Bachelor of Arts in 1905, having specialized and majored in economic subjects. Immediately on graduation, I entered the investment business in Chicago, Illinois; and in 1912, I came to Milwaukee, Wisconsin, and entered the employ of Wisconsin Trust Company. In 1914, I became head of its bond department. In July, 1919, Wisconsin National Bank of Milwaukee (which was affiliated with Wisconsin Trust Company) was consolidated with First National Bank of Milwaukee to form First Wisconsin National Bank of Milwaukee, and all of the bond and investment banking business of the Banks and their affiliates was placed in the bond department of First Wisconsin National Bank. I then became the head of this bond and [fol. 213] investment department, holding the office of Vice-President of the First Wisconsin National Bank. On January 1, 1920, a separate corporation, named First Wisconsin Company, was created to engage in investment banking and the underwriting and sale of securities, and the business of the said Bank's bond department was transferred to this new corporation as a nucleus of its business. At that time I became Executive Vice-President of said First Wisconsin Company, and on January 12, 1922, I became its President, which office I have held ever since and now hold. I am also a Vice-President and Director of First Wisconsin Trust Company and a Vice-President and Director of First Wisconsin National Bank, and, in the latter institution, I am a member of the Executive Committee and of the Finance Committee.

It is my opinion that a public utility, such as Wisconsin Telephone Company, should at the present time earn an annual return of not less than eight per cent (after providing for depreciation) upon the fair and reasonable value of its property used or useful in the rendition of its service, in order to place its securities upon a parity with other investments competing for funds in the market, and that such rate of return will be required for a substantial time to come. I am also of the opinion that for the same purposes it is essential that the rate of return upon such a public utility should be as uniform as possible from year to year and over a period of years.

In arriving at the above opinions, I have taken into consideration, among others, the following facts and factors based on information continually furnished me in the regular conduct of my business and special studies which have been made under my direction by the statistical and research staff of said First Wisconsin Company:

I have considered the market record and other facts including reported earnings and dividend rates of a num- [fol. 214] ber of electric, gas and telephone utilities, which I believe to be well managed, soundly financed and comparable with Wisconsin Telephone Company. The earnings available for common stock of these utilities in 1931 (being the latest available period of record for all of them) in comparison with the market price of their respective common stocks during the first six months of 1932 (and consequently the price at which new stock of similarly situated public utilities could be sold) show as a result earnings of 12.68% to 21.30% of the lowest price at which the stocks were sold during said period, and earnings of 7.19% to 8.53% of the highest price at which said stocks were sold during said period. These data were based upon sales of stock in comparatively small lots, and stock of a quantity necessary for a new issue under comparable earning records would have produced a lower price in the investment market.

Many of these comparable utilities had a capital structure made up of bonds and preferred stock, commonly referred to as senior securities, in addition to the underlying common stock. In this connection, I have considered the record of certain public utility corporations which issued

bonds during the first six months of 1932, and which I consider to be representative and to provide a fair indication of prevailing market conditions. These corporations had a record during the past five years of average earnings in relation to invested capital of 7.33% to 10.05%. The bonds of these corporations, carrying stated interest rates of 5, 5½, and 6%, and varying in maturity from one year to twenty years, and with reported earnings, after depreciation, of 1.9 to 5.1 times interest requirements, were placed on the market in the first six months of 1932 at prices which resulted in a cost to the corporations, over the life of the bonds, of 5.4% to 9.5% per annum.

I have been unable to ascertain any public utility corporations having a low or fluctuating record of earnings in [fol. 215] relation to invested capital which have issued new securities during 1932. However, the market prices of outstanding securities of such corporations are proper indications of the minimum amount which such utilities would have to pay to secure new investment funds in 1932. A number of utility corporations which reported average earnings in the past five years in relation to invested capital of 5 to 6½% have had their bonds sold during the year 1931 and the first six months of 1932 at prices ranging from a low of 46½% to 56¾% to a high of 81½% to 83% of par value. At the lowest prices, the yield of all of these bonds was in excess of 10% per annum, and new financing at a price even in excess of this amount would have been difficult, if not entirely impossible during said period.

I have determined for the first six months of 1932 the effect on the prices of public utility bonds which was produced by a record of unstable returns on invested capital. Certain public utilities which I have considered, and which are otherwise reasonably comparable with Wisconsin Telephone Company, and which are notable in the variation during the past five years of the rate of return on their invested capital, had outstanding in the year 1931 and the first six months of 1932, issues of mortgage bonds. In each case, the decline in market value of the said bonds during 1931 and the first six months of 1932 was greater than declines which occurred as to bonds of public utilities whose record of earnings was stable. In the case of each of the

corporations with an unstable earning record, the bonds sold at prices during the first six months of 1932 which resulted in a yield of 6.2% per annum based on the highest recorded sale and a yield in excess of 9% per annum based upon the lowest recorded sale.

In the foregoing paragraphs, I have discussed the effect of earning records in relation to the cost of financing of public utility corporations by means of the so-called senior [fol. 216] securities, principally because this type of financing is the only type of financing which has occurred under present economic conditions in the case of public utility corporations reasonably comparable with Wisconsin Telephone Company. However, I am of the opinion that the considerations heretofore stated relative to financing by the issue of senior securities would be present to a greater degree in the case of financing by the issue of common stock. In each case heretofore discussed, the issue of senior securities in the form of bonds has been made possible only by the existence of a large quantity of outstanding common stock.

I am of the opinion that the cardinal consideration which influences the acceptance of securities of public utility corporations by the investing public, and which under present economic conditions makes new financing possible at all for such utilities and under normal times makes such financing possible at advantageous rates, is the fact that under public regulation of the utilities, the maximum limitation imposed upon their earnings is counter-balanced and compensated by the knowledge on the part of the public that heretofore in times of bad business conditions, a minimum limitation on the earnings of utilities has operated to keep their earning records relatively stable.

(Signed) Robert W. Baird.

Subscribed and sworn to before me this 31st day of August, 1932. My commission expires July 4, 1933. (Signed) Willis G. Royce, Notary Public, Union County, Iowa. (Notarial Seal.)

[fol. 217] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF ALLEN G. HOYT

STATE OF NEW YORK,
County of New York, ss:

Allen G. Hoyt, being duly sworn, on oath deposes and says:

I reside at No. 33 East Seventieth Street, New York City. I have been for more than twenty-five years and am now engaged in the business of investment finance. From 1907 to 1916 I was a partner in the firm of N. W. Halsey and Company, or an officer of N. W. Halsey and Company, Incorporated, investment bankers, having its principal office in New York City and Branch offices in other cities of the United States, including Chicago. During this period N. W. Halsey and Company were engaged in dealing in investment securities of the classes offered to what is known in banking circles as the conservative investor and were engaged particularly in the financing of public utilities. In 1916 I became connected with the National City Company, a corporation affiliated with the National City Bank of New York. The National City Company, which has its principal office in the City of New York and branch [fol. 218] offices throughout the country, is engaged in the underwriting and distributing of investment securities, particularly bonds and stocks. From 1918 to 1928 I was Vice President of the National City Company. During that period it participated in underwriting securities of public utility companies or undertook financing for public utilities for its own account in the aggregate amount of many hundreds of millions of dollars. Since 1923 I have been a vice president of the National City Bank of New York and since 1929 I have also been a vice president of the City Bank Farmers Trust Company of New York City. At present I am one of the officers of those corporations having charge of the investment of trust funds and the review of such investments and my present duties necessitate my familiarity with the problems relating to the financing and development of public utilities. I have been at different

times a director of a number of public utilities and at the present time I am a director of the International Telephone and Telegraph Corporation and of the New York Steam Corporation.

During the period of my business experience as above stated I have repeatedly had occasion to participate in the procurement of capital for public utility enterprises and am familiar with the risks and uncertainties which the investment public considers attend the issue of securities by such enterprises and with the returns that have been and are now made upon such investments in public utilities and other enterprises, as well as with the market prices of their securities. During this period the City of New York has been and now is the principal financial center of the United States in which practically all underwritings of securities of any considerable size have been undertaken and, in my opinion, the prices charged by banking houses in the City of New York for financing public utilities and other enterprises by security issues have been as low or lower than anywhere else in the country. I have become generally familiar with the issues of securities by telephone companies. [fol. 219] During the period in which I was vice president of the National City Company that Company participated in all the syndicates formed to handle the bonds of the American Telephone and Telegraph Company and the various Associated Companies of the Bell System, including the New York Telephone Company, the New England Telephone Company, the Northwestern Bell Telephone Company, the Southwestern Bell Telephone Company, the Illinois Bell Telephone Company, and others, and I personally represented the National City Company in connection with the negotiation of such security issues. In this manner I have become acquainted with the financial condition of the Bell System, of which the Wisconsin Telephone Company is one of the Associated Companies.

It is my opinion that a public utility such as the Wisconsin Telephone Company must under present conditions, and under conditions likely to prevail for a considerable period of time, earn an annual net return of not less than eight per cent (after providing for depreciation) upon the fair and reasonable value of its property, used or useful in the rendition of its service in order to successfully main-

tain its securities upon a parity with other investments competing for funds in the market and to equal the return generally made in the same general part of the country on investments in other business undertakings having due regard to the relative risks and uncertainties.

In making my determination as above stated I have taken into consideration, among other things, the following factors:

I have considered that in order to make the securities of a public utility saleable, it is necessary that public confidence in such securities be established and maintained. The investors must have reasonable assurance of the integrity of the investment and the safety of their money. They must be afforded a return at least equal to the returns which they could obtain through other available in- [fol. 220] vestments of similar desirability. I have considered the rate of return which is reasonably sufficient to insure confidence in the financial soundness of such a utility and adequate, under an efficient and economical management, to maintain and support its credit and especially to enable it to raise the money for the discharge of its duties. In competing with other enterprises in marketing its securities to the public, a public utility such as a telephone company is somewhat limited by reason of the fact that it is subject to regulation by public authorities. If its earnings should exceed a compensatory rate of return it will ordinarily be compelled to reduce its rates to its patrons accordingly, while if, at any time, its return under existing rates becomes inadequate for any cause beyond its control, the procedure of obtaining relief so that compensatory rates may be charged is usually long drawn out and during this period the company is obliged to suffer a deficiency in return which is not made up when the rates are readjusted.

In the opinion of investors, also, a telephone company compares unfavorably in some respects with other public utilities, such as electric light and power or gas companies because, as the telephone business continues to develop and more subscribers in a given area obtain means of intercommunication, it is a matter of experience that the investment per station tends to increase, with a corresponding tendency to increase in the cost of rendering service to its

patrons, while electric light and power or gas companies, as their business develops, are enabled to install larger and more efficient generators, thereby tending to reduce the cost of production. Moreover, a telephone company, which sells only service to its patrons, is unable in times of declining business to show the same degree of flexibility of operation and reduced production cost as electric light and power or gas companies, for example, which are able, in the event of declining business, to effect important economies in production cost, such as reducing the purchase and use of fuel.

[fol. 221] I have also found that in the minds of a considerable number of investors an investment in securities of a telephone company is affected by the possibility of further development of wireless communication which may tend to reduce the use of telephones.

I have considered the fact that in good times some of the better managed utilities of established reputation have procured a portion of their capital from the sale of bonds at from five to six per cent, paying a commission for the sale thereof in a varying amount, dependent upon conditions. However, for more than a year last past there has been almost no market whatever for new issues of bonds other than governments and some municipalities and few attempts have been made to sell them. Within the past month or more there has been some revival of business and some bonds of public utilities have been offered in the market but the rate paid for them has been high, entailing a cost to the utility company of from five and one-half per cent to over six per cent on mortgage bonds. The demand for long term investments even of high character has been and still is very much limited and it is uncertain as to how long the present cost will continue and likewise as to what the future cost of financing is to be.

I have also taken into consideration the fact that the American Telephone and Telegraph Company is the sole stockholder of the Wisconsin Telephone Company and that the Wisconsin Telephone Company for many years has obtained its permanent capital by stock issues exclusively, having outstanding only a moderate amount of preferred stock, the remainder of its capitalization being in common stock. While this situation is unusual in that it has no bonded indebtedness, the rate of return which it should be

entitled to earn on its investment is not affected by the character of its outstanding securities. At the present time and so far as one can foresee in the future there is active [fol. 222] competition among utility corporations, industries and other businesses for surplus funds which are at any time available for investment and the American Telephone and Telegraph Company or the Wisconsin Telephone Company, like the others, will be compelled to meet this competition and to offer inducements to investors equal to those offered by others at the same time.

(Signed) Allen G. Hoyt.

Sworn to before me this 30th day of August 1932. My commission expires March 30, 1934. (Signed) William F. Gerlach. William F. Gerlach, Notary Public, Bronx County. Bronx County Clerk's No. 20. Bronx County Register's No. 100-G-34. New York County Clerk's No. 566. New York County Register's No. 4-G-317. (Seal.)

[fols. 223-227] In United States District Court

[Title omitted]

Affidavits of David E. Lilienthal, Theodore Kronshage, Jr., Andrew R. McDonald, William M. Dinneen, John H. Bickley, Asel L. Colbert, Cyrus G. Hill, J. G. Wray, George W. Cummings, E. W. Morehouse, and George C. Mathews in Opposition to the Application for an Interlocutory Injunction—Filed Sept. 7, 1932

John W. Reynolds, Attorney General; Samuel Bryan, Assistant Attorney General; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Dated Madison, Wisconsin, September 6, 1932.

[fol. 228] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF DAVID E. LILIENTHAL

STATE OF WISCONSIN,
County of Dane, ss:

David E. Lilienthal, being duly sworn, deposes and says:

I reside in Madison, Wisconsin. I am a defendant in this proceeding, and a member of the Public Service Commission of Wisconsin.

I have read the bill of complaint filed in this proceeding and am familiar with its averments. I have participated in all the sessions of the Public Service Commission concerned with the proceeding denominated as "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Service, Practices and Activities of the Wisconsin Telephone Company," 2—U—35, and I have sat as a Commissioner throughout the hearings held in Docket 2—U—35. In the hearings held in the months of April, [fol. 229] May and June, 1932, I was assigned to sit as presiding Commissioner. As such presiding Commissioner it was my duty to attend and conduct said hearings.

Hearings were held prior to the order complained of in this proceeding upon the following dates:

April 1-4, April 25-27, May 11-12-13, May 16-17-18-19, June 1-2-3, all in 1932.

At all times during the pendency of the proceeding leading up to the order of June 30, 1932, namely, from July 30, 1931, until June 30, 1932, complainant was afforded an opportunity to be heard by way of presentation of evidence by witnesses of its own choosing, and by way of cross-examination of witnesses attached to the Commission's staff or employed by the Commission. Under the practice of the Public Service Commission with which, as a member, I am familiar, following the institution of an investigation any party may at any reasonable time have an opportunity to present testimony on its behalf or in support of its position. Such an opportunity was available to the complainant during the eleven-month period between the institution of the investigation denominated as 2—U—35, and the order en-

tered June 30, 1932, of which it complains herein. At no time was the complainant denied an opportunity to present witnesses in its own behalf. No request, formal or informal, was ever made to me by any Company representative or counsel that a time be fixed for hearing Company witnesses.

As presiding Commissioner I conferred with Mr. Edwin S. Mack, Chief Counsel for the complainant, on or about April 25, 1932, during a recess in the hearing of testimony on that day. I asked him when he would begin the presentation of Company testimony. I stated that the Commission was of the opinion that it was desirable in the interests of facilitating the proceeding that he submit Company witnesses as early as possible, and I suggested the first week in May, 1932. He stated that the Company did not plan to introduce any testimony until the Commission's own investigation had been entirely completed, and the testimony [fol. 230] of the Commission's witnesses had been placed in the record, and he further stated that the Company did not plan to make any moves toward the preparation of its testimony until the Commission's witnesses had completed their testimony. I then stated that his position was unfortunate and that he should reconsider it inasmuch as it would greatly delay the conclusion of the proceedings. I pointed out that the Commission staff's inquiry might not be wholly completed in less than a year. At no later time did he indicate that the Company's position on this matter had changed.

At all times the Commission has been ready and willing and under its construction of the statutes had no alternative but to hear testimony submitted by witnesses on behalf of the complainant, but the fact is that at no time during the pendency of the proceedings of eleven months did the Company ask for an opportunity to present witnesses, and on the contrary declined to present witnesses when urged to do so.

In the case of all witnesses who have appeared before the Commission in the course of the investigation denominated as 2—U—35 the Company was given an opportunity to cross-examine every witness. The Company, through its counsel, took advantage of this oportunity in the case of the following witnesses whose cross-examination was conducted on the following dates:

Bickley—April 26, 27, June 3.
Hill—June 1.
Wray—April 27, June 2.
Altmeyer—May 11, 17.
Morehouse—May 11, 12, 18, 19.
Gustafson—May 11.
Seligman—May 17.
Paton—May 17.
Bonbright—May 19.
Nerlove—May 19.
Mills—May 13.
Fetter—May 16.
Viner—May 17.
Blough—May 12.
[fol. 231] Reyer—May 12.
Commons—May 12.

In the case of witness Colbert the Company was given an opportunity to proceed with cross-examination but counsel for the Company declined to proceed with cross-examination although urged to do so, and although adequate opportunity was afforded and has ever since been available. In the case of witness Bickley cross-examination was completed except upon one point on which counsel for the Company declined to cross-examine until another subject had been testified on. In the case of witness Hayner, as I am informed and believe, and in the case of part of the testimony of witness Morehouse, counsel for the Company stated upon the hearing that they might not care to cross-examine, and following such statement counsel did not inform the Commission that they desired to cross-examine said witnesses. On April 25, 1932, while presiding at a hearing in 2—U—35 I stated for the Commission that cross-examination of Commission witnesses should be *be* completed sometime during and before the last of May. (See p. 255 of Transcript of proceedings in In re Wisconsin Telephone Company, 2—U—35.)

At all times the Commission has been ready and willing to hear any argument on the law or the facts concerning the proceeding 2—U—35 pending before it. Whenever argument was requested by counsel for the Company no such request for an opportunity to present argument on the law or the facts was ever denied by this affiant as presiding Commissioner, and affiant is informed and believes

that no such request was ever denied by his associate Commissioners or by any other person having authority to pass on such request. On one occasion, on May 19, 1932, a request for an opportunity for oral argument was made on behalf of the plaintiff, Wisconsin Telephone Company, namely, relating to admissibility of certain economic testimony, and this request was immediately granted, and oral argument was held on the first day of June, 1932. If similar requests had been made, under the practice followed by the defendant Commission, such requests would have been granted.

[fol. 232] The Commission has directed its staff of accountants, engineers and statisticians to proceed with all dispatch with the investigation of the accounts, property and practices of complainant Company, and I am informed and believe that said staff is daily proceeding with such work and is making substantial and regular progress in ascertaining the facts concerning the Company's operations not heretofore reported on and testified to in the hearings referred to in this affidavit.

The Commission has ordered that hearings continue in said investigation, and by its order of June 30, 1932, fixed the next hearing for August 1, 1932. By stipulation said date was changed to August 22, 1932, at which time hearings will resume, and will continue from time to time as reports from the Commission's staff are completed and are ready for submission in the record, or as requests for hearing are received from the Company or other parties.

The order, against the enforcement of which injunction is sought in this suit, is expressly limited to a period of one year, and the order provides that during such time it is subject to modification upon the Company's application. No such application has been made.

The order further provides for the rendering of monthly financial and operating reports by the Company so that the Commission may be currently advised as to the Company's condition and be in a position to make any modification in its order which may appear reasonable and just.

David E. Lilienthal.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires March 17, 1935. Gladys E. Langdon, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 233] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF DAVID E. LILIENTHAL

STATE OF WISCONSIN
County of Dane, ss:

David E. Lilienthal, being duly sworn, deposes and says:

I am a member of the Public Service Commission and the same David E. Lilienthal who executed an affidavit in this case on August 16, 1932.

Since the execution of said affidavit, further hearings have been held in the state-wide telephone case 2—U—35 before the Commission, namely, on August 22, 23 and 24. The Company has completed cross-examination of the Commission's witnesses Colbert, Hayner, Bickley, Morehouse and White. The cross-examination of all the Commission's witnesses on testimony and exhibits, introduced in the proceeding thus far, is now complete.

Up to the date of the present affidavit, September 6, [fol. 234] 1932, the Company has made no application for modification of the order of June 30, 1932, as provided for in the terms thereof.

David E. Lilienthal.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Aug. 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 235] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF THEODORE KRONSHAGE, JR.

STATE OF WISCONSIN,
County of Dane, ss:

Theodore Kronshage, Jr., being duly sworn, deposes and says:

I reside in Fox Point, County of Milwaukee, Wisconsin. I am a defendant in this proceeding and a member and

chairman of the Public Service Commission of Wisconsin.

I have read the bill of complaint filed in this proceeding and I am familiar with its averments.

As chairman of the Public Service Commission of Wisconsin I am familiar with the practices of the Public Service Commission. During the pendency of the proceeding denominated "In the Matter of a State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Service, Practices and Activities of the Wisconsin Telephone Company," docketed 2—U—35, it has been the prac-[fol. 236] tice of the Public Service Commission, following the institution of an investigation, to permit any party at any reasonable time to have an opportunity to present testimony on its behalf or in support of its position. Such an opportunity was available to the complainant during the period from the institution of the proceeding by the Commission on July 30, 1931, until about March 15, 1932. From this latter date until on or about June 10, 1932, because of illness I did not regularly participate in meetings of the Commission, nor did I sit in any of the hearings in 2—U—35 prior to the entry of the order on June 30, 1932, but I am informed by my associate Commissioners and believe the fact to be that the same opportunity was available during the period from March 15 to and including June 30 as I know of my own knowledge was available between July 30, 1931, and on or about March 15, 1932. No request, formal or informal, was ever made to me by any Company representative or counsel that a time be fixed for hearing Company witnesses in the proceeding docketed as 2—U—35.

During the entire period, of which I have personal knowledge, of the pendency of the state-wide investigation, the Commission has been ready and willing, and under its construction of the statute had and has no alternative but to hear testimony submitted by witnesses on behalf of the complainant, but the fact is that at no time during the pendency of the proceeding did the Company ask for an opportunity to present witnesses.

At all times the Commission has been ready and willing to hear any argument on the law or the facts concerning the state-wide investigation, docket 2—U—35, which was pending before it. At no time have I, as chairman of the

Commission, ever denied any such request in the proceeding docketed 2—U—35, and I am informed and believe that neither of my associate Commissioners nor any other person having authority to pass on such request has denied any such request or application. Under the practice followed by the Commission, with which as a member and chairman I am familiar, if any such request for an opportunity to present witnesses or to present arguments on the law or the facts had been made, then under the practice [fol. 237] adopted and regularly followed by the Commission, such request would have been granted.

Theo. Kronshage, Jr.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires Dec. 22, 1935. Wm. M. Dinneen, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 238] In United States District Court

[Title omitted]

Affidavit of Andrew R. McDonald

State of Wisconsin,
County of Dane, ss:

Andrew R. McDonald, being duly sworn, deposes and says:

I reside in Madison, Wisconsin. I am a defendant in this proceeding and a member of the Public Service Commission of Wisconsin. I have read the bill of complaint filed in this proceeding and am familiar with its averments. I have participated in all the sessions of the Public Service Commission concerned with the proceeding denominated as "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Service, Practices and Activities of the Wisconsin Telephone Company," 2—U—35, and sat as Commissioner in most of the hearings in this proceeding held during the months of April, May and June, of 1932.

[fol. 239] As a member of the Public Service Commission of Wisconsin, I am familiar with the practices of that Commission. During the pendency of the state-wide investiga-

tion referred to above it has been the practice of the Public Service Commission following the institution of an investigation such as was instituted in this matter on July 30, 1931, to permit any party at any reasonable time an opportunity to present testimony on its behalf or in support of its position. Such an opportunity was available to the complainant throughout the period, beginning with the institution of the proceeding by the Commission on July 30, 1931, and up to and including the date of entry of the order complained of in this action, namely, June 30, 1932.

During the entire period between July 30, 1931, and June 30, 1932, the Commission has been ready and willing, and under its construction of the statute had and has no alternative but to hear testimony submitted by witnesses on behalf of the complainant. But the fact is that at no time during the pendency of the proceeding did the Company ask for an opportunity to present witnesses.

No request, formal or informal, was ever made to me by any Company representative or counsel that a time be fixed for hearing Company witnesses in the state-wide investigation docketed as 2—U—35.

At all times the Commission has been ready and willing to hear any argument on the law or the facts concerning the state-wide investigation, Docket 2—U—35, which is pending before it. At no time have I, as a member of the Commission, denied any such request in the proceeding, Docket 2—U—35, and I am informed and believe that neither my associate Commissioners nor any other person having authority to pass on such request has denied any such request or application. Under the practice followed by the Commission, with which as a member I am familiar, if any such request for an opportunity to present witnesses [fol. 240] or to present arguments on the law or the facts had been made, then under the practice adopted and regularly followed by the Commission, such request would have been granted.

Andrew R. McDonald.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires March 17, 1935. Gladys E. Langdon, Notary Public, Dane County, Wisconsin. (Seal.)

[Title omitted]

AFFIDAVIT OF WM. M. DINNEEN

STATE OF WISCONSIN,
County of Dane, ss:

William M. Dinneen, being first duly sworn, deposes and says:

I reside at Madison, Wisconsin. I am Secretary of the Public Service Commission of Wisconsin. It is my duty under the statutes to keep a full and true record of all proceedings of said Commission; and I have kept a full and true record of the proceedings before the Commission docketed in 2—U—35 and entitled as follows:

"In the Matter of a State-wide Investigation on the Commission's Own Motion of the Rates, Rules, Service, Practices, and Activities of the Wisconsin Telephone Company."

I hereby certify that the following is a statement of the papers filed, transcript of testimony and list of exhibits in said proceeding:

[fol. 242] Papers Filed

1. Notice of Investigation	July 29, 1931
2. Notice of Hearing	March 19, 1932
3. Opinion and Order	June 30, 1932
4. Order for Information	July 14, 1932
5. Application for Rehearing	July 19, 1932
6. Order Denying Rehearing	July 25, 1932

Transcripts

7. Hearing of April 1-4, 1932, pp. 1-252.
8. Hearing of April 25, 26, 27, 1932, pp. 253-620.
9. Hearing of May 2, 1932, pp. 621-764.
10. Hearing of May 11, 12, 13, 1932, pp. 765-1153.
11. Hearing of May 16, 17, 18, 1932, pp. 1154-1690.
12. Hearing of June 1, 2, 3, 1932, pp. 1691-2055.

Exhibits

13.	C-1	Wisconsin Telephone Company Earnings, 1915-1931.
14.	C-2	Wisconsin Telephone Company Long Term Debt & Capital Stock, 1915-1931.
15.	C-3	Wisconsin Telephone Company Interest & Dividends Paid, 1915-1931.
16.	C-4	Wisconsin Telephone Company Madison Exchange Earnings, 1915-1931.
17.	C-5	Exchange and Toll Apportionment (use of subscriber's line).
18.	C-6	Exchange & Toll Apportionment.
19.	C-7	Apportionment of Station Equipment.
20.	C-8	Apportionment of Outside Plant.
21.	C-9	Map of City of Madison (Property not Used and Useful).
22.	C-10	Apportionment of Central Office Equipment.
23.	C-11	Summary of Apportionment of Property Between Local and Toll.
24.	C-12	Maintenance—Madison Exchange—Vol. 1.
25.	C-13	Maintenance—Madison Exchange—Vol. 2.
26.	C-14	Apportionment Central Office Telephone Equipment.
27.	C-15	Battery Drain Apportionment.
28.	C-16	Adjustments of Wisconsin Telephone Company's Study of Apportionment of Power Plant between toll and exchange use.

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29.	C-17	Apportionment of Land and Buildings.
30.	C-18	Apportionment of General Equipment.
31.	C-19	Summary of Apportionment of Fixed Capital.
32.	C-20	Apportionment of Operating Expenses between Local and Toll.
33.	C-4A	3 pages, correction of error.
34.	C-9A	5 pages, memorandum, describing C-9.
35.	C-21	Madison Exchange Maintenance Expenses.
36.	C-22	Abnormal Maintenance Expenses, Madison Exchange.
37.	C-23	Report on Depreciation Text, Vol. 1.
38.	C-24	Report on Depreciation Schedules, Vol. 2.
39.	C-25	Report on Depreciation Appendices, Vol. 3.

40. C-26 Report on Depreciation, Madison Exchange.
41. C-27 Dividend Rates of A. T. & T. Licensee Companies.
42. C-28 Effects of Economic Depression on Employment, etc.
43. C-28A Non Manufacturing Employment in Wis., etc.
44. C-28B Number of Manual Workers Employed by Four Telephone Companies.
45. C-28C Number Clerical Workers Employed by Four Telephone Companies.
46. C-28D Addenda on Commercial Failures.
47. C-29 Comparison of Operating and Financial Statistics, Wisconsin Class A & B Utilities.
48. C-30 Comparison of Dividend Record, Wisconsin Class A & B Utilities.
49. C-31 Effects of Recent Depression on Wisconsin Agriculture.
50. C-32 Summary of Facts Shown by Tabulation from Corporation Tax Returns Filed with Wisconsin Tax Commission.
51. C-33 Bulletin 45—Wisconsin Tax Commission.
52. C-34 Bulletin 48—Wisconsin Tax Commission.
53. C-35 Comparison of Dividends and Dividend Rates of Wisconsin Telephone Companies 1928 & 1931
54. C-36 Disposition of Gross Income of Wisconsin Telephone Company for Years 1928 to 1931.
55. C-37 Comparative Statistics Wisconsin Normal Income Tax Assessed Against Persons other than Corporations
56. C-38 Statistical Summary—Economic Survey of Wisconsin.
57. C-39 Economic Conditions in Wisconsin.

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58. C-40 Economic Conditions in Wisconsin.
59. C-41 Economic Conditions in Wisconsin.
60. C-42 Indications for April, 1932.
61. C-43 Chart E-1.
62. C-44 Wholesale Prices in the United States and Great Britain.
63. C-45 Wholesale Prices in the United States.
64. C-46 Business Activity and Four Price Series.

65. C-47 Composite Index of General Business Activity—Photostatic Copy.
66. C-48 Movements of Index Numbers of Wholesale Prices During Three Periods of Recession.
67. C-48A (Table A).
68. C-48B (Table H).
69. C-49 Inequalities of Movements Among Prices and Related Movements.
70. C-49A (Table B).
71. C-50 Inequalities of Movements Among Wholesale Prices.
72. C-50A (Table C).
73. C-51 Inequalities of Movements.
74. C-51A (Table D).
75. C-52 Changes in the Real Value Per Unit of Commodities in Selected Groups.
76. C-52A (Table E).
77. C-53 Income & Purchasing Power of Farmers and Manufacturing Employees.
78. C-53A (Table F).
79. C-53B (Table G).
80. C-54 Chart on Prices of Metals.
81. C-55 Wisconsin Telephone Company Payroll Data.
82. C-56 Station Movements, Plant Management and Construction Statistics of Wisconsin Telephone Company.
83. C-57 Trends of Telephone Rates in Wisconsin.
84. C-58 Chart 1—Bell System in the United States, Number of Phones in Use and Calls Per Phone.
85. C-59 Chart 2—Bell System in the United States, Revenue Per Phone and Per Call.
86. C-60 Price Indices for Utilities, Consisting of a Group of Curves.
87. C-61 Price Indices for Utilities, Compared with Other Prices.

[fol. 245]

88. C-62 Mills Chart 4 with Yearly Utility Price Indices Superimposed.
89. C-63 Bell System Revenues—Utility Indices.
90. C-64 Chart A—Net Income After Taxes of Corporations Submitting Federal Income Tax Reports.

91. C-65 Chart B—Net Income After Taxes of Corporations Submitting Federal Income Tax Reports.
92. C-66 Chart C—Net Income After Taxes of Transportation and other Public Utility Corporations.
93. C-67 Chart D—Rate of Return on Net Worth of Utilities and All Corporations Submitting Federal Income tax Reports.
94. C-68 Chart E—Rate of Return on Net Worth of Manufacturing, Mining and All Corporations Submitting Federal Income Tax Reports.
95. C-69 Chart F—Rate of Return on Capital of American Telephone & Telegraph Company and other Public Utility Corporations.
96. C-70 Table Accompanying Exhibit C-64 and C-65.
97. C-71 Table to Accompany Exhibit C-66.
98. C-72 Tables Accompanying Exhibits C-67 and C-68.
99. C-73 Table Accompanying Exhibit C-69.
100. C-74 Net Income After Taxes of Corporations submitting Income Tax Reports.
101. C-75 Net Worth of Corporations submitting Balance Sheets with Income Tax Reports.
102. C-76 Rates of Return in the Public Utility Industries.
103. C-77 Rate of Return on Capital Stock Equity, Wisconsin Selected Class A Utilities.
104 C-77A Relation of Depreciation to Average Fixed Capital, Wisconsin Selected Class A Utilities.
105. C-17A Derivation of Allocation of Garage Space Between Exchange and Toll.
106. C-78 Telephone Operating Revenue, Madison Exchange.
107. C-79 Traffic Expenses, Madison Exchange.
108. C-80 Commercial Expenses, Madison Exchange.
109. C-81 General & Miscellaneous Expenses, Madison Exchange.

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110. C-82 Schedule 1—Exchange Service Revenues Years Ended December 31, 1929, 1930 and 1931.

Years
Schedule 2—Payroll Distribution 1931.
Ended December 31, 1929, 1930 and pts, Dis-
Schedule 3—Summary of Cash Recei nt Items
bursements, and other Cash Accou 1931, In-
Years Ended December 31, 1924 to
clusive.

111. C-83 Wisconsin Telephone Company, Con nparison
of Originating Calls, Toll Messages and Re-
port Tickets Billed, and Exchang e Fixed
Capital.

Wm. M. Dinneen.

Subscribed and sworn to before me this 16t h day of
August, 1932. My commission expires S Sept. 22,
1935. Hazel Otto, Notary Public, W isconsin.
(Seal.)

[fol. 247] In United States District Court

[Title omitted]

Affidavit of Wm. M. Dinneen

State of Wisconsin,
County of Dane, ss:

William M. Dinneen, being first duly sworn, dep oses and says:

I reside at Madison, Wisconsin. I am Secretar ry of the Public Service Commission of Wisconsin. It is my duty under the statutes to keep a full and true record o f all proceedings of said Commission; and I have kept a full and true record of the proceedings before the Co mmission docketed in U—4034 and entitled as follows:

"In the Matter of the Application of the Wiscon sin Telephone Company to Increase Rates at Madison, Wisconsin."

I hereby certify that the following is a stateme nt of the papers filed, transcript of testimony and list of e xhibits in said proceeding:

[fol. 248] Papers Filed

1. Application ..... August 13, 1930
2. Notice of Hearing ..... October 14, 1930
3. Interlocutory Order ..... June 3, 1931
4. Preliminary Decision ..... July 29, 1931

Transcripts

5. Hearing of Oct. 14, 1930 (14 pages).
6. Hearing of May 19, 1931 (390 pages).
7. Hearing of July 1, 1931 (pp. 391-524).
8. Hearing of July 2, 1931 (pp. 524-649).
9. Hearing of July 3, 1931 (pp. 655-749).
10. Hearing of July 7, 8, 1931 (pp. 751-951).
11. Hearing of July 9, 1931 (pp. 952-1076).
12. Hearing of July 15, 1931 (pp. 1077-1177).
13. Hearing of July 16, 1931 (pp. 1178-1321).
14. Hearing of July 17, 1931 (pp. 1322-1369).

Exhibits

15. Exhibit No. 1. Comparative Statement Annual Revenues and Expenses under Present & Proposed Rates, based on 12 mos. 1929, Madison.
16. Exhibit No. 2. Present Operations 1929.
17. Exhibit No. 3. Proposed Operations.
18. Exhibit No. 4. Estimate of Revenue Increase by classes.
19. Exhibit No. 5. Proposed 1930 net additions.
20. Exhibit No. 6. Average daily Calling Rate of PBX trunks and business phones.
21. Exhibit No. 6½. Petitions.
22. Exhibit No. 7. Average daily Fraternity, Sorority Calls.
23. Exhibit No. 8. Answers to City's Requests, Questions 1-10, 12-14, 17-40.
24. Exhibit No. 9. Answers to City's Requests, Questions 15-16.
25. Exhibit No. 10. Answers to City's Requests, Question 11.
26. Exhibit No. 11. Average Calling Rate PBX trunks at University, Capitol and business.

27. Exhibit No. 12. Uniform System of Accounts for Telephone Cos.

28. Exhibit No. 13. Articles of Ass'n of Wis. Tel. Co. (objects clause).

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29. Exhibit No. 14. Certificate of Railroad Commission to broker's license.

30. Exhibit No. 15. Letter of Registrar, Univ. of Wis., May 12, 1931, Student Attendance.

31. Exhibit No. 16. Rate Study—Mr. Hartt.

32. Exhibit No. 17. Moody's 10 year Analysis A. T. & T. Co.

33. Exhibit No. 18. 1929 Rate of Return Study toll system.

34. Exhibit No. 19. 1929 Report of A. T. & T. Co. to I. C. C.

35. Exhibit No. 20. 1930 Report of A. T. & T. Co. to I. C. C.

36. Exhibit No. 21. Estimate of costs incurred and amounts received by A. T. & T. in rendering license contract service.

37. Exhibit No. 22. Apportionment of departmental expenses of A. T. & T. Co., 1929.

38. Exhibit No. 23. Apportionment of departmental expenses of A. T. & T. Co. for 1930.

39. Exhibit No. 24. Reconciliation of Exhibit 21 with I. C. C. Reports, 1929 operations.

40. Exhibit No. 25. Reconciliation of Exhibit 21 with I. C. C. Reports, 1930 operations.

41. Exhibit No. 26. Cost to Wisconsin Telephone Company of licensee services, 1929, based on apportionment of total license payments by all companies.

42. Exhibit No. 27. Cost to Wisconsin Telephone Company of licensee services, 1930, based on apportionment of total license payments by all companies.

43 Exhibit No. 28. Western Electric Co. Sales and Net Profits, Bell Business, 1916-1930, inclusive.

44. Exhibit No. 29. Western Electric Co. Net Profits and Average Investment, 1916-30, inclusive.

45. Exhibit No. 30. Return on investment of 88 manufacturing companies.
46. Exhibit No. 31. Net profits to sales of 38 of the companies shown on Exhibit 30.
47. Exhibit No. 32. Net profits to sales of 39 manufacturing companies.
48. Exhibit No. 33. Analysis of average investment in operation Bell business, years 1916-33.
49. Exhibit No. 34. Comparison of sales of lead covered cable by Graybar & Western Electric.

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50. Exhibit No. 35. Comparison of sales of telephone apparatus by same companies.
51. Exhibit No. 36. Comparison of Western Electric prices with lowest advertised prices in general trade.
52. Exhibit No. 37. Chart of 36.
53. Exhibit No. 38. Cost study of Illinois Bell Telephone Co. purchases, 1929.
54. Exhibit No. 39. Cost study of Cheasapeake & Potomac Telephone Company's purchases, 1929.
55. Exhibit No. 40. Chart and comparison of savings to Bell Companies commencing with New York Telephone Company study in 1921.
56. Exhibit No. 41. Study of cost of apparatus and cable to Lincoln Telephone & Telegraph Company.
57. Exhibit No. 42. Study of cost of apparatus and cable to Tri-State Telephone & Telegraph Company.
58. Exhibit No. 43. Summary of cost studies of other independent companies' purchases.
59. Exhibit No. 44. Jobbing price list comparison of Western Electric to general trade.
60. Exhibit No. 45. Hartt's Maintenance study per dollar invested of Madison Exchange and Seven Largest Bell Wisconsin Exchanges.

61. Exhibit No. 46. Hartt's study of fixed capital per station.
62. Exhibit No. 47. Company's answers to city's supplemental questions. (Not introduced in entirety).
63. Exhibit No. 48. Chandler's study of per cent use of PBX system intercommunicating calls.
64. Exhibit No. 49. Chandler's study of per cent toll usage to total usage, average peg count day.
65. Exhibit No. 50. Diagram of switchboard.
66. Exhibit No. 51. Study of a "switchboard" used in handling local toll.
67. Exhibit No. 52. Units of work study.
68. Exhibit No. 53. Chart of contract services rendered by A. T. & T.
69. Exhibit No. 54. Organization charts, operation and engineering.
70. Exhibit No. 55. Organization charts, devolopment and research.

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71. Exhibit No. 56. Picture, old style rubber cable.
72. Exhibit No. 57. Delineation lead covered cable development.
73. Exhibit No. 58. Picture, 1800 pair cable.
74. Exhibit No. 59. Picture, 1200 pair cable.
75. Exhibit No. 60. Cost chart showing savings in cable due to development.
76. Exhibit No. 61. Bulletin on non-quatted small gauge cables.
77. Exhibit No. 62. Bulletin on pulp insulated cable.
78. Exhibit No. 63. Photograph of development of cable loading coils.
79. Exhibit No. 64. Photograph of comparative sizes.
80. Exhibit No. 65. Cross section hand set.
81. Exhibit No. 66. Specification butt treatment of cedar poles.
82. Exhibit No. 67. Bulletin, dimensions for treated poles.
83. Exhibit No. 68. Bulletin, on mortar banding joints.
84. Exhibit No. 69. Photograph of splicing tool.

85. Exhibit No. 70. List of handbooks on outside plant practices.
86. Exhibit No. 71. Underground cable handbook.
87. Exhibit No. 72. Pole line handbook.
88. Exhibit No. 73. Plant training manual.
89. Exhibit No. 74. Common battery manual.
90. Exhibit No. 75. Substation apparatus installation manual.
91. Exhibit No. 76. Station apparatus supplement.
92. Exhibit No. 77. Substation wiring manual.
93. Exhibit No. 78. Local operating manual.
94. Exhibit No. 79. Transmission equivalent data.
95. Exhibit No. 80. Studies of non-multiplle PBX's.
96. Exhibit No. 81. Bound volume, Joint Report with N. E. L. A.
97. Exhibit No. 82. List of bulletins available to Associated Companies.
98. Exhibit No. 83. Telephone directory standards.
99. Exhibit No. 84. List of Patents.
100. Exhibit No. 85. List of handbooks on practices.
101. Exhibit No. 86. Handbook on gas in underground conduits.
102. Exhibit No. 87. Bulletin on subscribers' sets.
103. Exhibit No. 88. Answers to questions contained in Mr. Blake's letter of June 24, 1931, Atty. Mack.
104. Exhibit No. 89. Traffic circulars and bulletins—peg counts—coefficients. Chandler.
105. Exhibit No. 90. Use of Codes; List of codes.
106. Exhibit No. 91. Apportionment between local exchange calls and toll calls—expenses & revenues.

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107. Exhibit No. 92. Computation of exchange plant which would not be required if no toll calls were carried through exchange plant. Crowell.
108. Exhibit No. 93. Composite average service life & net salvage percentage for depreciable property in service on Dec. 31, 1914.
109. Exhibit No. 94. Maintenance expense.

110. Exhibit No. 95. Specimen general engineering circulars.
111. Exhibit No. 96. Specimen plant engineering circulars.
112. Exhibit No. 97. Specimen plant engineering letters.
113. Exhibit No. 98. Specimen plant operation circulars.
114. Exhibit No. 99. Specimen plant operation letters.
115. Exhibit No. 100. Specimen specifications.
116. Exhibit No. 101. Indices list—construction, operation & maintenance practices issued by A. T. & T. Co.
117. Exhibit No. 102. Specimen Handbook specifications on plant construction.
118. Exhibit No. 103. Specimen—Maintenance Practices.
119. Exhibit No. 104. Specimen sections transmission data.
120. Exhibit No. 105. Accounting services performed by the A. T. & T. Co. under license contract.
121. Exhibit No. 106. Accounting circular & letters issued to Wis. Tel. Co. by American Tel. & T. Co.
122. Exhibit No. 107. Plant savings in Wisconsin.
123. Exhibit No. 108. Plant savings in Madison.
124. Exhibit No. 109. Organization Chart.
125. Exhibit No. 110. Straightforward Trunking.
126. Exhibit No. 111. Traffic Engineering Practices for straightforward trunking.
127. Exhibit No. 112. Method of operation for straightforward trunking over interoffice trunks.
128. Exhibit No. 113. Straightforward Trunking specimen letters.
129. Exhibit No. 114. Trunk Assignment Problems in Connection with straightforward trunking—specimen letters.
130. Exhibit No. 115. Straightforward Trunking—All trunks—Busy registers on large Trunk Groups—specimen letters.
131. Exhibit No. 116. Savings due to Straightforward Trunking.
132. Exhibit No. 117. Adjustment of Force, Traffic Circular No. 117.

[fol. 253]

133. Exhibit No. 118. Savings due to improved planning of Operating Force Requirements.
134. Exhibit No. 119. Improvement in speed of toll service resulting from introduction of combined line and recording method of operating.
135. Exhibit No. 120. Toll Labor Savings—Wisconsin Company—1930—Combined Line and Recording Method.
136. Exhibit No. 121. Statement Various Offerings.
137. Exhibit No. 122. Data on Sale of Rights.
138. Exhibit No. 123. Net Profits on Sales.
139. Exhibit No. 124. Income Tax Returns, 1927-1930.
140. Exhibit No. 125. Audit of Pension Accrual Rates for 1930.
141. Exhibit No. 126. Map of Madison.
142. Exhibit No. 127. Map of Genoa Exchange.
143. Exhibit No. 128. Map of Milwaukee Trunks.
144. Exhibit No. 129. Exchange Statement.
145. Exhibit No. 130. Statements of Operation of Toll System.
146. Exhibit No. 131. General Prorate for year 1930 distribution.
147. Exhibit No. 132. Cost of Sale of A. T. & T. Stock.
148. Exhibit No. 133. Statements, New Gross Revenue tax law, base rate area map, etc.
149. Exhibit No. 134. Fundamental plan of Madison Exchange—marked for identification—not introduced.
150. Exhibit No. 135. General Bulletin No. 2—Executive Department Chart.
151. Exhibit No. 136. Information relative to depreciation accounting.
152. Exhibit No. 137. Accounting Instruction.
153. Exhibit No. 138. List of circulars and letters.
154. Exhibit No. 139. Computation of information set out in Exhibit 16.
155. Exhibit No. 140. Maintenance study—station equipment maintenance on a per station basis, etc.
156. Exhibit No. 141. Table XXXLV—Maintenance Study—station equipment main-

tenance on a per station basis for the year ended October 31, 1930.

157. Exhibit No. 142. What it would cost the Wis. Tel. Co. to provide its own instruments.

158. Exhibit No. 143. Map of the city of Madison of P. B. X's.

159. Exhibit No. 144. Summary of Maintenance pay roll and maintenance pay roll per average station.

[fol. 254]

160. Exhibit No. 145. Station removals and changes & stations in service and per average station in service.

161. Exhibit No. 146. Milwaukee Exchange—maintenance study.

162. Exhibit No. 147. Showing 7 exchanges—number of stations excluding private lines and switched stations.

163. Exhibit No. 148. Number of stations as of the end of the year excluding private lines and service stations.

164. Exhibit No. 149. Pair miles per company working line and pair miles per company station.

165. Exhibit No. 150. Showing certain data for the years 1925 and 1930.

166. Exhibit No. 151. List of P. B. X. surveys used in computing percentage of use of P. B. X. systems of intercommunicating calls in Ex. 48.

167. Exhibit No. 152. Long distance circuit layout in Territory of Wisconsin, Chart, Map.

168. Exhibit No. 153. Correspondence covering Purchase of Transmitters, Receivers & Induction coils.

Wm. M. Dinneen.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires Sept. 22, 1935. Hazel Otto, Notary Public, Wisconsin. (Seal.)

[fol. 255] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF WM. M. DINNEEN

STATE OF WISCONSIN,
County of Dane, ss:

William M. Dinneen, being first duly sworn, deposes and says:

I am Secretary of the Public Service Commission and am the same William M. Dinneen who executed an affidavit in this case on August 16, 1932, concerning the record of the proceeding before the Commission docketed in 2—U—35 and entitled as follows:

"In the Matter of a State-wide Investigation, on the Commission's Own Motion, of the Rates, Rules, Service, Practices, and Activities of the Wisconsin Telephone Company."

Since the execution of said affidavit, further hearings have been held in the state-wide telephone case 2—U—35 before the Commission, namely, on August 22, 23 and 24.
[fol. 256] In addition to the papers filed in said proceeding, which are mentioned in my prior affidavit, there has been filed the Commission's supplementary finding of September 6, 1932, a true copy of which is hereto attached.

In addition to the transcripts mentioned in my prior affidavit, the following transcript is now on file with the Commission:

12a. Hearing of August 22, 23, 24, 1932, pp. 2056-2458.

In addition to the exhibits mentioned in my prior affidavit, the following exhibits are now on file with the Commission:

112. C-83A. Wisconsin Telephone Company, Comparison of Originating Calls, Toll Messages and Report Tickets Billed, and Exchange Fixed Capital (corrected).
113. C-84. Provisional estimates.
114. C-85. Salaries, Wisconsin Telephone Company.
115. C-86. Letter, Wisconsin Telephone Company to Public Service Commission, July 29, 1932.

116. C-87. Letter, Public Service Commission to Wisconsin Telephone Company, August 4, 1932.
117. C-88. Salaries, American Telephone and Telegraph Company.
118. C-89. Salaries, Bell Telephone Laboratories, Inc.
119. C-90. Salaries, Western Electric Company, Inc.
120. C-91. Salaries, Electrical Research Products, Inc.
121. C-92. Copy of letter from J. G. Wray, Chief Engineer, Wisconsin Telephone Company, to B. S. Garvey, General Auditor, January 27, 1916, and Table C attached thereto.
122. C-93. Statement No. 1, Wisconsin Telephone Company, depreciation rates.
123. C-94. Copy of letter from J. G. Wray, Chief Engineer, Wisconsin Telephone Company, to B. S. Garvey, General Auditor, March 10, 1916.

Wm. M. Dinneen.

Subscribed and sworn to before me this 6th day of September, 1932. My commission expires Aug. 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 257] BEFORE THE PUBLIC SERVICE COMMISSION OF WISCONSIN

2—U—35

In the Matter of the State-wide Investigation, on the Commission's Own Motion, of the Rates, Rules, Service, Practices, and Activities of the WISCONSIN TELEPHONE COMPANY

SUPPLEMENTARY FINDING

On April 25, 1932, in the course of hearing in the state-wide case, the Commission requested the respondent Telephone Company to complete cross-examination of all Commission witnesses by the end of the month of May. (Trans. p. 253). By the end of June this cross-examination had been completed except as to witnesses Colbert, Hayner and White, and parts of the testimony of Bickley and Morehouse. Cross-examination of these witnesses was had on

August 22, 23 and 24, counsel for respondent having indicated that he would have difficulty in proceeding at an earlier date.

The cross-examination of Hayner, Morehouse and White dealt with relatively unimportant matters; their direct testimony was in no way impeached.

Colbert's direct testimony related to a comprehensive study made by the Commission's accounting staff under the direction and supervision of Colbert, and in collaboration with Samuel Meisels and Chief Accountant Bickley. The report prepared by Colbert, Exhibit C-23, consisted of 390 pages of text, Exhibit C-24 consisting of 47 schedules, Exhibit C-25 consisting of 116 charts and tables, and a separate report on Madison depreciation. Briefly described, it may be said that the purpose of the analysis and report was to break down the respondent's depreciation reserve of some $16,000,000 according to primary accounts, and to indicate whether or not excessive reserves had been accumu- [fol. 258] lated on certain accounts, and to furnish a test of the annual rate which should be allowed on various classes of property.

The principal points of criticism of Colbert's testimony in the cross-examination were:

(1) The method used in segregating among classes of property the opening balance in the reserve at a time prior to that for which the company applied rates made up from studies of component rates.

(2) The method used in breaking down into rates applicable to individual property accounts the flat rate which was used during the period of Federal Control.

(3) The use of rates for various classes of property which may have been developed in 1916 instead of rates which it appears had been developed with reference to conditions existing about 1912. This applies to the method of segregating the provision for depreciation during a few years immediately prior to 1916.

(4) The use of salvage figures for station equipment which are the average figures for salvage left after the removal of an instrument from a particular location, the company's contention being that the final salvage on the ultimate scrapping of the instrument should be used.

(5) The methods employed in segregating the reserve between exchange and toll property, and the conclusion for certain classes of property that where a uniform component rate had been applied to that class of property for both exchange and toll a higher rate should have been applied to toll and a lower to exchange.

(6) The methods by which the witness reached the conclusion that a balance of something over a million dollars had been accumulated against depreciation of drop wire.

(7) Clerical errors of typing and assembling the exhibit. None of these could substantially affect the result.

On June 30, 1932, this Commission issued a temporary interlocutory order in this proceeding in which a reduction of 12½ per cent in the exchange rates of the respondent company was ordered for a period of one year, pending the [fol. 259] completion of the investigation. In that order reference was made and in some part reliance had upon testimony by witnesses employed by the Commission, among them the aforesaid Colbert, Hayner, White, Bickley and Morehouse. With the completion of the cross-examination had on August 22, 23 and 24 referred to above, cross-examination of all witnesses who have testified in the hearings thus far and all witnesses who testified prior to the entry of our order of June 30, 1932, has been completed.

The Commission has carefully considered this cross-examination, which was conducted by Mr. Sammond, associate counsel, in a thorough and highly skillful manner. As to witnesses Hayner, White and Morehouse the cross-examination, as has been pointed out, brought out nothing which in any way weakens or impeaches that testimony. As to the witness Colbert the Commission finds (a) that the objects of his study (referred to above) were proper and necessary for regulatory purposes, and (b) that the methods which he employed in the preparation of the report designed to accomplish those objects were reasonable. In general he used the best methods available, although as to some portions of the study if information had been in existence for every year similar to that which the witness found available in the company's records as to some years it would have been possible to apply more precise methods. The cross-examination of witness Bickley requires but a word

of comment. It will be observed that in our order of June 30, 1932, the Commission gave no effect to the adjustments of maintenance expenses indicated in the testimony of witness Bickley on Madison maintenance, Exhibit C-12. Hence his cross-examination on that exhibit does not affect our order of June 30. The other reports upon which Bickley testified and was cross-examined were derived from the company's reports; the cross-examination did not bring out substantial errors in these exhibits.

The Public Service Commission specifically finds that to the extent that our order of June 30, 1932, was based upon the testimony of witnesses who had not at that time been cross-examined, or whose cross-examination had not been completed (under the circumstances herein related), prior to the issuance of that order but whose cross-examination has now been had and completed, said cross-examination [fol. 260] in no wise affects the validity nor changes the basis of its original order, and by the present supplementary finding the Commission, in the light of said cross-examination, expressly adheres to, affirms, ratifies, and approves its opinion and order of June 30, 1932.

Dated at Madison, Wisconsin, this 6th day of September, 1932.

Public Service Commission of Wisconsin. Theo. Kronshage, Jr., Chairman. A. R. McDonald, Commissioner. David E. Lilienthal, Commissioner.

Attest:

Wm. M. Dinneen, Secretary.

[fol. 261] In United States District Court

[Title omitted]

Affidavit of John H. Bickley

State of Wisconsin,
County of Dane, ss:

John H. Bickley, being duly sworn, deposes and says:

I reside at 4150 Nakoma Road, Madison, Wisconsin. I am Chief Accountant of the Public Service Commission of Wisconsin.

I was graduated from the University of Pennsylvania, in June, 1915, with the degree of Bachelor of Science in Economics. Graduate work in accounting and business finance was taken at Columbia University during the summer of 1917.

From September, 1915, until June, 1924, with the exception of one year, I was instructor, assistant professor, and associate professor in charge of accounting instruction at Lehigh University, Bethlehem, Pennsylvania.

In August, 1924, I became a senior accountant with the [fol. 262] Public Service Commission of Pennsylvania. This position was held until October, 1925. At the latter date, I became chief auditor of the Public Service Commission of Maryland by competitive examination. This position was held until December 31, 1926, when I became associated with the public accounting firm of Alonzo Lee Miles & Co. of Baltimore. In May, 1928, I was engaged by the Federal Trade Commission, in Washington, D. C., as a public utility expert, to assist in organizing and directing an investigation being made by that Commission of electric and gas utilities, their holding and associated management, engineering, construction and financing companies. This position was held until May, 1931, when I became chief accountant of the Public Service Commission of Wisconsin.

During the course of my experience with public service commissions, I was engaged on various rate cases among which were cases relative to the following companies whose book value of fixed capital and gross operating revenues, as of the year of the inquiry, are given below:

Name of company	Book value of fixed capital	Gross operating revenues
Philadelphia Rapid Transit Company	(A)$60,870,520	$38,807,354
Equitable Gas Company	(B)	13,750,774
Consolidated Gas and Electric Company of Baltimore	91,618,108	21,459,698
Cumberland and Allegheny Gas Company	(B)	1,062,502

(A) Does not include leased properties. The property owned and operated by this company under lease was valued at upward of $200,000,000.

(B) The affiant does not have available the record of book value of fixed capital of these companies.

While with the Public Service Commission of Maryland, I was engaged on the determination of the pre-license costs of the Conowingo Hydro Electric Project of the Philadel-

phia Electric Company. The company claimed pre-license costs of approximately 9 million dollars.

[fol. 263] When in private practice I was employed by the United Railways and Electric Company of Baltimore to audit the charges made against it by the Consolidated Gas and Electric Company of Baltimore under a cost-plus contract for the purchase of electric energy. This contract involved approximately $1,500,000 a year of purchased power by the railway company.

My first assignment with the Federal Trade Commission was the preparation of a report form of 225 pages to be filled out by various companies. This was followed by the organizing of field work on accounting and financial investigations of electric and gas utilities, their holding and associated management, engineering and construction companies. On all of this field work I acted in a consulting capacity and on a substantial part I exercised general supervision. There follows a list of companies investigated to which I gave more direct supervision. These are all holding corporations. A substantial amount of work was performed on other companies, including several operating utilities.

Name of company	Investments	Consolidated fixed capital	Combined or consolidated gross revenues
Electric Bond and Share Company	$799,709,025	$ (A)	(B)$42,410,701
American Power and Light Company	239,603,883	672,694,728	88,222,149
Electric Power and Light Corporation	102,749,836	(A)	59,852,615
American Gas and Electric Company	104,047,191	407,821,130	68,021,531
Southeastern Power and Light Company	165,958,219	485,674,923	46,259,201
North American Company	132,700,581	776,497,853	147,779,869
New England Power Association	131,016,419	261,421,384	38,196,784
Middle West Utilities Company	206,817,296	(A)	162,337,274
[fol. 264]			
National Electric Power Company	(A)	383,016,588	(C)
Utilities Power and Light Corporation	(A)	312,209,088	51,453,619
Total			$621,592,825

(A) Information not available to affiant.
(B) Corporate gross revenue—not consolidated.
(C) Included with Middle West Utilities Company.

It is estimated that the total consolidated fixed capital (at book value) controlled by the above holding companies was at least 4½ billion dollars.

I am the author of several articles on public utility accounting and regulation. These include papers on:

Valuation for Rate Purposes, American Economic Review, March, 1926.

Interest during Construction, Journal of Land and Public Utility Economics.

A Fair Return for Public Utilities, Journal of Land and Public Utility Economics.

Capital and Maintenance Expenditures, Journal of Land and Public Utility Economics.

I hold certified public accountant's certificates from the States of Maryland and Wisconsin.

I am familiar with the systems of accounts prescribed by the Interstate Commerce Commission for telephone companies, steam railroads and electric railways, and the systems of accounts for various classes of public utilities prescribed by the Public Service Commission of Wisconsin and by regulatory commissions of many other states.

During the past twelve months, I have directed an examination of the books, accounts and records of the Wisconsin Telephone Company and of its annual reports to the Public Service Commission of Wisconsin.

I have read the opinion and order of the Public Service [fol. 265] Commission of Wisconsin (hereinafter sometimes referred to as the "Commission"), decided June 30, 1932, in the matter of the state-wide investigation of the Wisconsin Telephone Company (hereinafter sometimes referred to as the "Telephone Company").

I have read the application of the Telephone Company to the Commission for a rehearing.

I have read the bill of complaint of the Telephone Company in this suit.

Pension Accruals and Other Employees' Benefits

A portion of the pension accruals of the Telephone Company and of its sickness, accident, death and similar benefits to employees and of the expenses of the relief department of the Telephone Company should be charged to construction because:

1. Such pensions and other benefits and the expenses associated therewith constitute a part of the consideration paid to employees for their services.

2. All forms of compensation to employees should be charged in accordance with the work they perform.

3. The employees who participate in the benefits are engaged in both construction and operations.

4. The benefit costs are related directly to the volume of construction work performed by the Telephone Company with its own employees.

5. The benefits are forms of insurance.

6. Insurance is an element of construction costs as well as of operating expense.

7. The conclusion that a portion of the benefits should be charged to construction is in accord with the principles of prescribed accounting regulations.

[fol. 266] Fees Paid to American Telephone and Telegraph Company

A portion of the fees paid by the Telephone Company to the American Telephone and Telegraph Company under the license and service contract between the two companies, should be charged to construction because:

1. The alleged services which the Telephone Company receives under the contract relate to construction as well as to operations.

2. Payments made by other public utilities to affiliated corporations for similar services are charged in part to construction.

3. The conclusion that a portion of the fees should be charged to construction is in accord with the principles of prescribed accounting regulations.

The Company Has Attracted Capital Without an 8 per Cent Return

The Telephone Company, in its application for a rehearing on the opinion and order of the Commission, alleges as follows:

"For a long time prior to the 30th day of June, 1932, and on said date and at all times thereafter a return rea-

sonably sufficient to assure confidence in the financial soundness of a telephone utility in Wisconsin and adequate under efficient and economic management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties, was and is not less than 8% per annum on the property used and useful in the conduct of the business of such telephone utility."

This statement is untrue and contrary to fact because:

1. The Telephone Company has not earned during any year since 1915 as much as 8 per cent on its average undepreciated book investment in telephone plant and equipment plus the equivalent for the years prior to 1931 of what the Telephone Company claims for stores and supplies, working capital and going value in 1931.

2. The Telephone Company has not earned during any year since 1915 as much as 8 per cent on a value for the [fol. 267] average amount of property used and useful for furnishing telephone service plus stores and supplies, working capital and going value if such value of property, for years prior to 1931, bore the same relationship to the average undepreciated book investment in plant and equipment as the Company's claim for fair value of property in 1931 bore to its average undepreciated book investment of that year and if the stores and supplies, working capital and going value for years prior to 1931 were equivalent to the Company's claim for 1931.

3. During the years 1915 to 1931, inclusive, the return (net operating income) earned by the Telephone Company aggregated $36,944,402. This was at an average rate of 5.461 per cent per annum on the average undepreciated book investment in telephone plant and equipment plus the equivalent for the years prior to 1931 of what the Telephone Company claims for stores and supplies, working capital and going value in 1931.

4. During the years 1915 to 1931, inclusive, the average return on the average amount of property used and useful for furnishing telephone service plus stores and supplies, working capital and going value was 5.822 per cent if a value for such property is calculated (as in 2, above) on the assumption that for years prior to 1931 the value of

plant and equipment bore the same relationship to undepreciated book investment as the fair value, claimed by the Telephone Company for 1931, bore to the undepreciated book investment of that year and that stores and supplies, working capital and going value for years prior to 1931 were the equivalent of the Company's claims for these items in 1931.

5. The Telephone Company has enjoyed a strong credit and financial position.

6. The Telephone Company has been able at all times since 1915, at the latest, to obtain funds necessary for its business. From December 31, 1915, to December 31, 1931, the book investment in plant and equipment increased from [fol. 268] $14,884,269 to $75,138,311. During the same period it issued $30,988,000 of additional common stock and $4,947,000 of preferred stock.

7. From January 1, 1915, to December 31, 1931, the surplus of the Telephone Company increased from $888,497 to $8,727,779. This was an increase of $7,839,282.

8. It has been able to pay regular annual dividends at 8 per cent per annum on its common stock, since 1915 at the latest, and has earned an average of 11.22 per cent per annum on said common stock since 1915.

What an 8 per Cent Return Would Have Yielded

1. It has been stated that during the 17 years, 1915 to 1931, inclusive, the return (net operating income) earned by the Telephone Company aggregated $36,944,402.

2. If during the years 1915 to 1931, inclusive, the Telephone Company had earned 8 per cent per annum on the average undepreciated book investment in plant and equipment plus the equivalent of the Company's claim in 1931 for stores and supplies, working capital and going value, its return (net operating income) would have aggregated $54,119,970. This would have been $17,175,568 in excess of the actual earnings of $36,944,402. If the return of $54,119,970 had been earned, the average earnings per share per annum on the common stock outstanding during the 17 years would have been $17.21 in contrast with actual earnings per share of $11.22. There could then have been

paid dividends averaging $13.99 per share per annum, in contrast with the $8.00 per share actually paid, and there would have remained for surplus an average of $3.22 per share per annum as the Company actually had.

3. If during the years 1915 to 1931, inclusive, the Telephone Company had earned 8 per cent per annum on a value equivalent to that claimed by the Company for the year 1931 for property used and useful in furnishing telephone service plus the equivalent of its claim for 1931 for [fol. 269] tores and supplies, working capital and going value, its return (net operating income) would have aggregated $50,760,322. This would have been $13,815,920 in excess of the actual earnings of $36,944,402. If the return of $50,760,322 had been earned, the average earnings per share per annum on the common stock outstanding during the 17 years would have been $15.97 in contrast with the actual earnings of $11.22 per share. There could then have been paid dividends averaging $12.75 per share per annum, in contrast with the $8.00 per share actually paid, and there would have remained for surplus an average of $3.22 per share per annum as the Company actually had.

Company Erroneously Stated Return in Madison Case

I am familiar with the testimony and exhibits in the Madison case denominated U—4034 which is part of the record in the state-wide 2—U—35 upon which the order sought to be enjoined in the present proceeding, is based. I have compared Exhibit No. 2 submitted by Wisconsin Telephone Company in the Madison case (as a basis for its application to increase rates) with the actual books and records of the Company and find the following facts:

1. The Company claimed, in Exhibit No. 2, that its return on total plant and equipment was only 0.82 per cent in 1929, whereas its return, according to its own books, was 3.68 per cent in said year.

2. The Company claimed, in Exhibit No. 2, that its net income was $21,570.39, whereas its own books show net income of $93,102.33.

3. The Company claimed depreciation for the year of $168,567.77, whereas its own books show depreciation of $97,035.83.

4. The Company claimed depreciation at the annual rate of 7 per cent, whereas its own books show that its real deduction for depreciation was 4.68 per cent and that it has never deducted in excess of 5 per cent for depreciation in any year since 1919.

5. The Company, in Exhibit No. 2, figured depreciation on non-depreciable property with the result that its claimed depreciation was actually 8.12 per cent as compared with depreciation charged of 4.68 per cent.

[fol. 270] 6. The Company, in Exhibit No. 2, figured return for the year on plant and equipment, as of December 31st, which was $99,912.00 more than the average of plant and equipment for the year.

Financing During Years 1917 to 1931, Inclusive

1. If all sums owed to the American Telephone and Telegraph Company by the Wisconsin Telephone Company and recorded by the latter as "Advances from System Corporation," are considered as borrowings, and if bonds assumed by the Telephone Company and a land contract on the University Building in Milwaukee are considered as borrowings, the total financing engaged in by the Telephone Company from January 1, 1917, to December 31, 1931, aggregated $74,750,342. Of this total, $30,000,000 was by sale of common stock at par value to American Telephone and Telegraph Company; $39,233,342 was borrowed from the same corporation; $400,000 represented a land contract; $170,000 was for bonds assumed; and $4,947,000 was from a sale of an equal par value of 7 per cent preferred stock. On the amounts owed to American Telephone and Telegraph Company, interest at 5.88 per cent per annum was paid. The land contract obligation carried interest at 5 per cent. The interest on bonds assumed was 7 per cent.

2. Of the $39,233,342 borrowed from American Telephone and Telegraph Company, $29,749,100 was paid in common stock at par value, $7,084,242 was paid in cash and $2,400,000 remained unpaid at December 31, 1931. The $29,749,100 of common stock issued to American Telephone and Telegraph Company, in payment of amounts owed to that corporation, is included in the total of $30,000,000 par value of common stock issued from January 1, 1917, to December 31, 1931.

3. During the same period, there were other sources of financing, among which were the earnings of the Telephone Company after the payment of all dividends, an increase in the depreciation reserve and notes issued to the Bankers Trust Company of New York in connection with the pension system.

[fol. 271] Company's Claim of Average Book Investment in Telephone Plant and Equipment

1. In its bill of complaint in this suit, the Telephone Company claims that its average book investment in telephone plant and equipment was $72,513,126, not including its claims for stores and supplies, working capital and going value. The Commission's accountants, under the direction of the affiant, have not as yet completed their examination of the book cost of plant and equipment. Therefore, the affiant is unable to say whether or not the book figures represent the actual cost of such property. Neither can the affiant say whether or not the book records of plant and equipment are kept in conformity with the Uniform System of Accounts for Telephone Companies prescribed by the Interstate Commerce Commission.

2. In this affidavit, the Company's book figures for plant and equipment are used without prejudice to future findings concerning the accuracy of the amounts and to other matters relative to plant and equipment. The Company's claims for stores and supplies, working capital and going value are likewise used without conceding the propriety or the accuracy of such claims.

Return Earned During 1931 on Local Portion of Exchange Property

1. In its opinion and order, the Commission found that the average exchange system fixed capital (book value undepreciated), during 1931, was $53,005,006, of which the maximum assignable to local use was $47,988,710 and the minimum assignable to toll use was $5,016,296. (Page 96 of opinion.) During 1931, the average depreciation reserve on exchange fixed capital, as such property was allocated by the Telephone Company, was $14,091,736. After assigning $17,643 of the exchange reserve to toll for the Milwaukee

prorate and apportioning 90.5 per cent of the balance to local use, in conformity with the apportionment of property in the Commission's order, it is found that $12,737,054 of the reserve is applicable to the local portion of exchange fixed capital. The depreciated book value of the local portion of [fol. 272] exchange fixed capital is thereby found to be $35,-251,656 ($47,988,710 less $12,737,054).

2. If there is added to the depreciated book value of the local portion of exchange fixed capital a portion of the Company's claims for stores and supplies, working capital and going value, by the processes described below, the local property plus stores and supplies, working capital and going value is found to be $40,957,592.

3. The stores and supplies claimed by the Company is the "materials and supplies actually on hand as per the books of account." The average of materials and supplies in 1931 was $339,119. A portion of this amount is assigned herein to local use on the basis of the ratio of the stores and supplies to average undepreciated book investment in plant and equipment. The amount thus apportioned is $224,426.

4. The Company claimed working capital for 1931 as "1% of the book value of complainant's plant and equipment." If 1 per cent is applied to the average undepreciated book cost of the local portion of exchange fixed capital, namely, $47,988,710, the working capital, thus computed, for local use would be $479,887.

5. The Company claimed "going value at 10% of the reproduction value of the total plant and equipment." It appears that the going value claimed by the Company was $7,557,690, and that its estimated reproduction cost new of plant and equipment was $75,576,900 which amounts to 104.225 per cent of undepreciated book cost. If this percentage is applied to the local portion of the undepreciated book cost of fixed capital, there would be derived the amount of $50,016,233 as the estimated reproduction cost new of the local fixed capital based upon the foregoing relationship. When 10 per cent is applied to this amount, it is found that the going value would be $5,001,623 on the basis of the assumptions set forth.

[fol. 273] 6. These items may now be summarized, as follows:

Depreciated book value of local portion of exchange fixed capital	$35,251,656
Stores and supplies	224,426
Working capital	479,887
Going value	5,001,623
Total	$40,957,592

7. In its opinion and order, the Commission determined the net operating income of the local system for 1931, after all adjustments, to have been $3,812,227. This was before allowance for the rate reductions of 12½ per cent. After allowance for the rate reductions, the $3,812,227 was reduced to $2,245,777. When these amounts of return (net operating income) are related to the $40,957,592 of depreciated book value of the local portion of exchange fixed capital plus the equivalent for the Company's claims for stores and supplies, working capital and going value, as computed above, it is found that the return on the $40,957,592, in 1931, before allowance for the rate reduction was 9.31 per cent and after allowance for the rate reduction was 5.48 per cent.

8. The depreciated book investment in the local portion of exchange plant and equipment in 1931 was $35,251,656. Before the allowance for the rate reduction but after the various adjustments made by the Commission on the basis of 1931 business, the return on the local portion of the depreciated book investment in exchange plant and equipment (not including stores and supplies, working capital and going value) was 10.8 per cent. After the allowance for the rate reduction, the return was 6.37 per cent.

Earnings on Common Stock under Commission's Order

Before the rate reduction of 12½ per cent, the Company's return on the common stock assignable to the local portion of exchange property would have been at the rate of $13.35 [fol. 274] per share or 10.88 per cent on the total common stock equity (par value of stock plus surplus). The effect of the Commission's order was to reduce these earnings to

$7.41 per share or to 6.04 per cent on the total common stock equity.

Volume of Purchases from and Amount of Construction Cost Represented by Payments to Western Electric Company

1. The records of the Telephone Company show that substantially all the materials used by the Company and of its equipment are purchased from Western Electric Company.

2. During the years 1929 and 1930, the gross additions to the plant and equipment of the Telephone Company were $11,746,823 and $12,410,195, respectively. Of these amounts, not less than 50 per cent originated from work performed by the Western Electric Company and from materials and equipment purchased from that corporation. During the years 1929 and 1930, for a number of years prior thereto and since 1930, the Western Electric Company was and has been controlled by the American Telephone and Telegraph Company which controls, also, the Wisconsin Telephone Company. The common stock of Wisconsin Telephone Company is owned 100 per cent by American Telephone and Telegraph Company and 98.3 per cent of the common stock of Western Electric Company is owned by American Telephone and Telegraph Company.

3. There have not been completed, for years prior to 1929 and for the year 1931, such analyses of the gross construction of the Telephone Company as are necessary to determine the amount of such construction represented by payments to Western Electric Company.

Time Required to Complete Accounting Investigation

It is estimated that it will require until July 1, 1933, to complete the accounting investigation of the Telephone Company provided (1) that the staff engaged on the work at June 30, 1932, is retained on the work, (2) that the ex- [fol. 275] changes examined are the 10 largest and 13 other representative exchanges, and (3) that no additional work is required in connection with other matters, such as court action. At June 30, 1932, there were 15 individuals engaged on the accounting investigation of the Telephone Company. The estimated time makes allowance for a cer-

tain analysis of fixed capital. If this discloses that additional work must be performed, the required time will be prolonged. No allowance is made for any investigation of any affiliated company.

John H. Bickley.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 276] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF ASEL R. COLBERT

STATE OF WISCONSIN,
County of Dane, ss:

Asel R. Colbert, being duly sworn, deposes and says:

I reside at 1717 E. Kane Place, Milwaukee, Wisconsin. I am a Special Public Utility Investigator for the Public Service Commission of Wisconsin.

I have been engaged in accounting work for the past ten years. From 1921 to 1923, I was employed in public accounting work by Martin W. Cookerow, C.P.A. (deceased), of Washington, D. C. From 1923 to 1927, I was engaged in railroad accounting work for the Chicago Heights Terminal Transfer Railroad Company, Chicago Heights, Illinois. Beginning July 1, 1927, I again entered the employ of Martin W. Cookerow (deceased), then an associate of C. Bascom Slemp, Attorney, Washington, D. C., and did the ac-
[fol. 277] counting work in connection with various cases handled by the law office of C. Bascom Slemp and associates.

In July, 1928, I was employed by the Federal Trade Commission, Washington, D. C., as an Examiner engaged in investigating the accounts and records of public utility holding companies and their subsidiary operating, construction and servicing companies. This position was held until August, 1931, when I became a Special Public Utility Investigator of the Public Service Commission of Wisconsin.

During the course of my employment with the Federal Trade Commission, I made detailed examinations of the accounts and records of a number of nationally known public utility companies. These examinations included, among other things, analyses of investments and properties owned by the utilities, analyses of securities issued by the utilities, and analyses of their revenues and expenses.

There follows a list of companies in the investigation of which I was actively engaged. On all of the companies, except Electric Bond and Share Company, I was in charge of the field investigation with a force of senior and junior accountants under my supervision.

Name of company	Investments of property	Gross revenue
Electric Bond & Share Company	$799,709,025	$42,410,701
National Power & Light Company	131,980,760	9,110,853
Middle West Utilities Company	206,817,296	18,605,313
North West Utilities Company	24,653,375	1,424,998
United Public Service Corporation	48,322,027	8,063,912
United Public Utilities Company	29,954,218	4,852,002
Central Illinois Public Service Company	85,483,857	15,218,444
Appalachian Electric Power Company	180,903,756	19,651,301
Mississippi Valley Utilities Investment Company	31,253,899	2,802,373

I have read the opinion and order of the Public Service Commission of Wisconsin (hereinafter sometimes referred to as the "Commission") decided June 30, 1932, in the [fol. 278] matter of the state-wide investigation of the Wisconsin Telephone Company (hereinafter sometimes referred to as the "Company").

I have read the application of the Company to the Commission for a rehearing.

I have read the bill of complaint of the Company in this suit.

I am familiar with the system of accounts prescribed by the Interstate Commerce Commission for telephone companies.

During the past eleven months, I have been engaged in an examination of the books, accounts and records of the Wisconsin Telephone Company.

There has been made by me, or under my immediate supervision, a detailed analysis of the depreciation expenses and the depreciation reserves of the Company, and a report thereon has been presented before the Commission in open hearings and is identified as Exhibits C-23, C-24 and C-25 in the testimony on Case 2—U—35.

The allowance of $1,888,520 (shown at page 62 of the Commission's order), for depreciation expense during the year 1931, on property carried as exchange investment, exclusive of general equipment other than office furniture and fixtures, and before any apportionment of exchange property to toll investment, is ample, because,

1. A reasonable rate for depreciation of exchange manual central office equipment is not more than 5.7 per cent per annum instead of the rate of 7.5 per cent used by the Company in 1931.

2. A reasonable rate for depreciation of station apparatus is not more than 3.2 per cent per annum instead of the rate of 5 per cent used by the Company in 1931.

3. A reasonable rate for depreciation of private branch exchanges is not more than 4.2 per cent per annum instead of the rate of 5.7 per cent used by the Company.

4. A reasonable rate for depreciation of booths and special fittings in not more than 2.7 per cent per annum instead of the rate of 4.1 per cent used by the Company in 1931.

[fol. 279] The above noted changes in depreciation rates, together with a correction of erroneous apportionment of depreciation expense between exchange and toll operations of $16,748, accounts for the reduction in exchange depreciation expense from $2,162,477, the amount shown by the Company's records, to $1,888,520, the amount allowed in the Commission's order; and in this connection, the fact is that further study has shown that a depreciation allowance of less than $1,816,000 is ample, and this latter amount includes $66,743 of depreciation on exchange aerial line wire which has already been completely depreciated by charges to operating expenses.

A reasonable rate for depreciation of exchange manual central office equipment during 1931 was not more than 5.7 per cent per annum, and not 7.5 per cent, the rate used by the Company in 1931, because,

1. The service life study made by the Company from which a depreciation rate of 7.5 per cent was developed errs in that it was based upon both exchange and toll manual equipment and the rate is therefore a composite one

which is not applicable to exchange manual central office equipment alone.

2. The service life of exchange manual central office equipment, indicated by a turnover study, was 14 years and for toll equipment it was 6.7 years.

3. Growth of the investment in toll manual central office equipment has been faster than the growth of exchange manual central office equipment, and rapid growth tends to reduce the service life of this class of property.

4. The life of exchange manual equipment is prolonged through the now current decrease in telephone business, because this decrease tends to postpone the time when inadequacy might occur.

5. The Company's estimate of the composite service life of exchange and toll manual central office telephone equipment was predicated upon the theory that the rate of growth in the future would be equal to that of the past, which is contrary to the facts as they are now known. By failure [fol. 280] to give due weight to the lessening in growth of the equipment account, the Company arrived at too short a service life estimate.

6. The ratio of the reserve on exchange manual equipment to the service value of the property account has been maintained at approximately 45 per cent during the past 11 years by a depreciation rate of 5.7 per cent per annum and this in spite of growth of the property account. By the use of the same depreciation rate, the reserve on toll manual equipment has decreased during a period of 11 years from 47 per cent to 1.3 per cent of the service value of the equipment. These facts illustrate that past experience on toll manual central office equipment should not be considered in estimating a depreciation rate for exchange manual central office equipment.

7. A rate of 5.7 per cent per annum, if used during the remaining life of the present exchange manual central office equipment, together with the reserve already accrued, will more than recover its original cost less the salvage recovery at retirement.

A reasonable rate for depreciation of station apparatus during 1931 was not more than 3.2 per cent per annum in-

stead of 5 per cent, the rate used by the Company in 1931, because,

1. The service life of station apparatus was estimated at 6 years by the Company, although the turnover studies upon which based showed life indications of 6.4 years, 7.3 years and 8.1 years.

2. The salvage realized on station apparatus has been much in excess of the Company's estimates, said excess amounting to over $835,000 during the period 1921 to 1931, inclusive.

3. The per cent of salvage realized during the 10-year period, 1921 to 1931, was 84 per cent, whereas the Company estimated salvage of 65 per cent during the period 1921 to 1930 and 70 per cent during 1931.

4. The accounting regulations of the Interstate Commerce Commission provide that the loss and no more than the loss on retirements of property should be compensated for by charges for depreciation expense.

[fol. 281] 5. Since the loss on station apparatus to be compensated for by depreciation charges is composed of the original cost of the property, less the salvage actually realized, the Company has overstated its retirement loss through understating the percentage of salvage realized.

6. A depreciation rate of 5 per cent, the rate used by the Company in 1931, would, if applied during the period 1913 to 1931, build up an excessive depreciation reserve.

7. If a rate of 3.2 per cent per annum had been used from 1913 to 1931, the accrued depreciation reserve on station apparatus would be adequate.

A reasonable rate for depreciation of private branch exchanges during 1931 was not more than 4.2 per cent per annum instead of 5.7 per cent, the rate used by the Company in 1931, because,

1. The Company estimated net salvage of 46 per cent, whereas net salvage of 72 per cent has been realized from 1913 to 1930, inclusive, and 67 per cent for the period from 1926 to 1930, inclusive.

2. The estimate of 60 per cent net salvage shown in the Commission's order, which, in conjunction with the service

life of nine and one-half years, gives rise to a depreciation rate of 4.2 per cent, is a fair estimate and is in fact lower than the net salvage actually realized by the Company.

A reasonable rate for depreciation of booths and special fittings during 1931 was not more than 2.7 per cent instead of 4.1 per cent, the rate used by the Company in 1931, because,

1. The Company estimated net salvage of 55 per cent, whereas 78 per cent was realized from 1913 to 1931, inclusive, and 94 per cent from 1926 to 1930, inclusive.

2. The estimate of 70 per cent net salvage shown in the Commission's order, which, in connection with a service life of eleven years, gives rise to a depreciation rate of 2.7 per cent, is a fair estimate and is in fact lower than the net salvage actually realized by the Company.

[fol. 282] The Commission's accounting staff found from analysis of the records that the reserve which the Company had provided for the depreciation of its exchange property, as of December 31, 1931, was $13,891,227. This is not in any sense a theoretical amount. Actually, it is an amount which has been arrived at through a painstaking analysis of the Company's own books of account and supporting records, and is substantially the amount which the Company would have arrived at had it desired to show, separately and distinctly, the portion of the reserve for depreciation applicable to exchange property.

The Company alleges (page 27 of petition) "and in fact the Company's depreciation reserve, is kept as a whole, making provision for depreciation contingencies by rule of average applicable to all property, and said Commission's allocation made in said Order is unwarranted by the basis of said Company's depreciation reserve or by any proper theory of accounting."

The Company's statement is erroneous, because,

1. The depreciation reserve is not a contingency reserve and the Company does not make "provision for depreciation contingencies." This statement by the Company is contrary to the definition of depreciation contained in the Classification of Accounts prescribed by the Interstate Commerce Commission and to the practices of the Com-

pany. The reserve is intended to provide for the losses incurred on the retirements from service of the Company's property. These retirements occur according to certain laws and are not in any sense contingencies.

2. The Company does not make provision for depreciation "by rule of average applicable to all property" but, in fact, accrues depreciation separately on each class of property and makes studies to determine the rate of depreciation for each property account.

3. The Company's general ledger shows only one depreciation reserve account. The balance in this account represents the difference between the total additions to and the deduction from the depreciation reserve. Accounting and engineering records of the Company shows details [fol. 283] of these additions to and deductions from the reserve by classes of property included in exchange and toll investment, to the extent of 92 per cent of the total additions and deductions. The remaining 8 per cent of the total additions to and deductions from the reserve have been segregated between the property accounts on an equitable basis by the Commission's accountants. Even though there should be some small degree of error in the proration of the 8 per cent, the effect would be negligible on the final result as an error of 5 per cent on the 8 per cent would amount to an error of only 4/10 of 1 per cent in the final result.

Further, in this connection, the Interstate Commerce Commission has, by order dated July 28, 1931, requested that the depreciation reserve of telephone companies be "broken down into component parts corresponding to such primary accounts as include property hereinbefore found to be depreciable" and that such information be reported annually to the Interstate Commerce Commission and to the commissions of all states in which the Company operates. What has been done in breaking the Company's depreciation reserve down into its component parts is no different in principle than that which has been requested of the Company by the Interstate Commerce Commission and which the Company will itself have to do and submit to this Commission in due course.

The Company's petition states (page 28) "Said Commission's order (especially at page 80) (correct page re-

ferred to is probably 60) erroneously states that the Company has an excessive reserve for depreciation as to certain classes of property, which statement is based on the said Exhibits C-23, C-24, and C-25 hereinbefore referred to, and is based on an improper allocation of items and in disregard of the real nature of such reserve hereinbefore referred to." The fact is that several of the property accounts are depreciated more than 100 per cent of their original cost less estimated salvage. This fact has been ascertained by detailed analysis of the depreciation accounting of the Company, and in this connection, further [fol. 284] study has shown the depreciation reserves on certain classes of property to be excessive even though the property account is not completely depreciated.

The Wisconsin Telephone Company makes periodic provision for depreciation on a straight-line basis. Under this method, the annual depreciation is obtained by dividing (a) the investment in the property less the estimated net salvage to be realized or plus the estimated salvage loss by (b) the number of years of estimated service life of the property. That is, there is distributed equally and uniformly over the estimated life of property, by equal monthly depreciation charges, the total loss to be sustained on the property (investment less net salvage or plus salvage loss).

Asel R. Colbert.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 285] In United States District Court

[Title omitted]

Affidavit of Cyrus G. Hill

State of Wisconsin,
County of Milwaukee, ss:

Cyrus G. Hill, being duly sworn, deposes and says that he is an engineer employed by the Public Service Commis-

sion of Wisconsin. Previous to that time he was engaged in work as a partner of J. G. Wray & Company, consulting engineers of Chicago. He graduated from Yale College in 1912 with the degree of Bachelor of Arts and obtained the degree of Master of Electrical Engineering at Harvard in 1914. Immediately thereafter he was employed for a time by Western Electric Company in the cable testing department. His next employment was in the engineering department of the Central Group of Bell Telephone Companies, which group included Wisconsin Telephone Company, in the division having to do with transmission and production engineering. Except for time spent in mili- [fol. 286] tary service he was with the Central Group of Bell Telephone Companies until 1919 when he left to go into partnership with Mr. James G. Wray in the consulting engineering business.

With J. G. Wray & Company he was engaged in a consulting capacity in a large number of telephone cases including, among others, employment by the Northwestern Bell Telephone Company and the Tri-State Telephone & Telegraph Company over a period of two years on valuation work in connection with rate cases; appraisals for the North Dakota Independent Telephone Company and the Western Electric Telephone System of Iowa; a commercial survey, fundamental plan and engineering plans for reconstructing the telephone system at Fort Wayne, Indiana, and a rate case involving that company; employment by the Indiana Bell Telephone Company in its state-wide rate case before the Commission and the Federal Court; employment by the City of New York; the Attorney General of the state of New York and the New York Public Service Commission at various times from about 1921 to 1928 in connection with studies of telephone rates (a part of this work was a segregation of the properties of the New York Telephone Company between local and toll uses); employment by the New Jersey Public Service Commission in similar capacities; employment by a citizens' committee in a rate case at Los Angeles, by the cities of Providence, Rhode Island, Chicago, Illinois, San Antonio, Texas, and by the Public Service Commission of Wisconsin.

Starting about 1926 he was Vice President and Director of the United Telephone Company operating an extensive independent telephone system and had charge of engi-

neering and operations. He was engaged in engineering work for the Central Caroline Telephone Company and took part in appraisals made of a number of foreign properties for the Associated Telephone & Telegraph Company. In addition, he has made a number of reports for bankers dealing with the purchase and sale of telephone properties and has done work for a number of independent companies in connection with rates and engineering practices.

[fol. 287] He has made a number of studies involving the segregation of property between local and toll service, including one at San Antonio, one in New York previously referred to, one in Providence, Rhode Island, studies for the cities of Seattle, Tacoma, and Spokane, for the State of Washington on a state-wide basis, and for the cities of Buffalo and Syracuse.

Segregation of Property, Expenses, and Revenues Between Local and Toll Service

Affiant further says that during the last half of the year 1931 and the year 1932, up to the present time, he has been engaged in a study and investigation of the plant, property and operations of the Wisconsin Telephone Company; that he has made in particular an exhaustive study of the Company's property in the Madison exchange and has made a complete segregation of the property, revenues and expenses of that exchange between the local and toll services; that he has made such study as time will permit of the property and operations of the Telephone Company in the remainder of the State of Wisconsin and has made an approximate estimate of the property, expenses, and a determination of the revenues in the State of Wisconsin allocable to the local service; that to complete the segregation of the property, revenues and expenses of the Wisconsin Telephone Company between toll and local services for the entire State of Wisconsin in detail will require extensive studies and the gathering of data in the field relating to the Company's plant and traffic and cannot be completed within a period of less than six months to one year.

Affiant further states, as a result of his studies of the Company's property, revenues and expenses, that the average book cost for the year 1931, of the Company's property used in the local exchange service, was not in excess of

$47,988,710. Of total adjusted operating expenses, for 1931, of $14,027,043 not more than $9,679,383 are devoted to the local service and not less than $4,347,660 to the toll service. Of total telephone operating revenues for 1931 of $18,087,521, $13,491,610 are derived from the local service and $4,595,911 from the toll service.

[fol. 288] Affiant further states, in explanation of the terms used above, that the following is true: The telephone exchange is an operating unit comprising an area within which local or exchange rates for telephone service are charged for calls between subscribers. The telephone exchange usually includes a single city or village and the immediately adjacent territory.

Service rendered by the Telephone Company consists of two principal kinds—(1) exchange service consisting of calls between subscribers within a single exchange, and (2) toll service consisting of calls between subscribers located in different exchanges. These two classes of service are essentially different and distinct as evidenced by the fact that in many exchanges and groups of exchanges the exchange service and toll service are rendered by different and unrelated telephone companies without the existence of competition.

Affiant has read the plaintiff's bill of complaint in this case and the plaintiff's application for rehearing before the Public Service Commission of Wisconsin which was made a part of the bill of complaint, and is familiar with these documents. Affiant states that in his opinion the allegation made in paragraph 17 of the bill of complaint, to wit, that exchange and toll service are essentially similar is erroneous and that the two services are essentially different; with reference to the statement in paragraph 18 that it is the universal practice in the United States for exchange rates to cover the costs of the terminal or toll-board-to-subscriber's station service on toll calls, affiant points out the following facts:

1. The New York Telephone Company, the largest Bell system operating company, in the case of New York Telephone Co. v. Prendergast before the United States District Court of the Southern district of the State of New York, decided Nov. 7, 1929—36 Fed. (2d) 54, allocated to the exchange service, and associated with the exchange service revenues produced by local telephone rates, only the

costs of rendering service between subscribers located in the same exchange area, and allocated to the toll service all costs of toll calls from originating to terminating subscribers' stations in different exchange areas.

[fol. 289] 2. A large group of independent telephone companies with which affiant has been intimately connected, all connecting companies of the Bell system, have always looked to the toll company (the Bell system) for compensation for their services in connecting Bell system toll calls to their subscribers' stations.

The attempt of plaintiff to make the local rates of the Wisconsin Telephone Company cover a part of the cost of the toll service violates the natural and basic division of plaintiff's business between exchange and toll services, is purely arbitrary, and in affiant's opinion would result in unjust discrimination.

In all telephone exchanges the greater part of the toll calls originate and terminate with a comparatively small group of subscribers, while the great majority of the subscribers use the toll service to a very limited extent and some not at all. Any attempt to enforce a flat rate charge for toll service, as is argued for by the Company in its bill of complaint, is in affiant's opinion unjustly discriminatory.

Plaintiff's statement in paragraph 19 of its bill of complaint that "Any attempt to make a change in the said universal system of designing toll rates and exchange rates in a single state will disturb the entire telephone service throughout the United States and interfere with and burden interstate commerce" is contrary to fact since no such disturbance followed the New York Telephone Company's method of setting up its return on its local and toll business above referred to.

This affiant is not familiar with the method used by plaintiff to determine the property used in intrastate exchange service, paragraph 8, page 8, of the bill of complaint, and the return derived therefrom, shown in paragraphs 9 and 10 of the bill, in which plaintiff includes intrastate local service and the terminal or toll-board-to-subscriber's-station part of the intrastate toll service, but excludes the terminal or toll-board-to-subscriber's-station part of the interstate toll service. The affiant is now engaged in a study of plaintiff's books and records for the purpose of

finding the amounts of property and expenses devoted to the interstate toll service and the revenues derived there-
[fol. 290] from, which study will require several months to complete. To this affiant's information and belief no records or studies are at present available from which the amount of intrastate exchange property and business including terminal intrastate toll service and excluding interstate toll service could be stated with any degree of accuracy. That little accuracy has, in fact, been obtained by the plaintiff in the figures set forth in the bill of complaint is evident on their face. Paragraph 9 of the bill shows the return at present rates for the entire intrastate telephone business in 1931 to be $2,710,000 and on the intrastate exchange to be $2,310,000, a difference of $400,000 assignable to the intrastate toll service exclusive of terminal service. Paragraph 10 of the bill shows the return under the Commission's reduction of rates for the entire intrastate telephone business in 1931 to be $1,482,000 and for the intrastate exchange service $1,035,000, a difference of $447,000 assignable to intrastate toll service, exclusive of terminal service. According to the Company's figures, therefore, the Commission's order would be responsible for a change of $47,000 or over 10% in the return on the intrastate toll service (excluding terminal service) whereas, in fact, the said order affects the intrastate toll rates not at all. The corresponding figures for the first five months of 1932, stated in the bill, show $24,000 for return under the present rates for intrastate toll service (excluding terminal service) and $40,000 for return under the Commission's order on the same intrastate toll service for which no change of rate was ordered. The discrepancy here is two-thirds.

Affiant further says:

Property Not Used and Useful for Exchange Purposes

Affiant is at present engaged in making a study of the property and records of the Wisconsin Telephone Company for the purpose of determining the amount of nonused and useful property and the amount of property used by other companies and properly chargeable to them which is included in the book fixed capital accounts of the Wisconsin Telephone Company, and also to determine the amount of
[fol. 291] property at present included in the fixed capital account which is not at present in existence.

This study is not yet completed and its completion will require several months additional work. Up to the present time certain exchanges of the Wisconsin Telephone Company have been studied and the results found by affiant for these exchanges are hereinafter set forth:

The Wisconsin Telephone Company has in its exchange property a substantial amount of underground conduit primarily for the use of the American Telephone and Telegraph Company to carry that company's long distance toll cable through Wisconsin Telephone Company exchanges. In many instances this conduit is not required for Wisconsin Telephone Company exchange or toll purposes and will not be used by the Wisconsin Telephone Company for many years to come. In some instances conduit was constructed by the Wisconsin Telephone Company for the American Telephone and Telegraph Company under the most adverse weather conditions in the middle of winter at very high costs in order to meet the American Telephone and Telegraph Company's schedules for cutting its toll cables in service. Whereas conduit so constructed by the Wisconsin Telephone Company for the use and advantage of the American Telephone and Telegraph Company should be charged to the American Telephone and Telegraph Company and whereas conduit carrying Wisconsin Telephone Company toll cables primarily or exclusively should be charged to the toll fixed capital account of the Wisconsin Telephone Company, such conduit is in fact charged to the exchange fixed capital accounts of the Wisconsin Telephone Company, with the exception of a few ducts actually in use by the American Telephone and Telegraph Company for which the latter company compensated the Wisconsin Telephone Company a pro-rata part of the cost. It is the practice of the Wisconsin Telephone Company to charge all conduit within the exchange area to the exchange fixed capital account notwithstanding the fact that the Company's own accounting instructions, contained in Accounting Bulletin No. 50-A [fol. 292] dated January 31, 1929, provide that such conduit be charged to toll fixed capital. On page 55 of said bulletin the following instruction appears:

"The following shall be classed as Toll Underground Conduit:

(a) Any underground conduit constructed exclusively or primarily for toll cables, even if carrying some exchange cables.

(b) Underground conduit outside the limits of an exchange carrying any toll cables.

(c) A section in a small exchange of a run of underground conduit through a number of exchanges where construction of underground conduit in the small exchanges would not be justified for exchange purposes at, or shortly after, the time of construction."

Affiant's studies so far cover the exchanges of Madison, Oshkosh, Appleton, Fond du Lac and Stevens Point and the amount of exchange conduit which should be classified as toll or charged to the American Telephone and Telegraph Company for the reasons above set forth was found to be as follows:

Madison	$61,442.00
Oshkosh	68,671.00
Appleton	64,724.00
Fond du Lac	98,454.00
Stevens Point	37,181.00
Total of the 5 exchanges	$332,472.00

This amount improperly included in the Wisconsin Telephone Company's exchange fixed capital amounts to 41½% of the total book cost of all conduit in these five exchanges, and about 17.4% of all exchange underground conduit of the Wisconsin Telephone Company excluding Milwaukee. This study has not yet been extended to include Milwaukee or other exchanges of the Wisconsin Telephone Company.

The Wisconsin Telephone Company has in past years purchased a large amount of property from independent [fol. 293] telephone companies, the total amount of such purchases being $2,669,295. Such purchases of properties were at the time of purchase or shortly thereafter included in the fixed capital accounts of the Wisconsin Telephone Company. A considerable part of the plant purchased from independent companies has been removed or abandoned and is not at present in existence. This affiant is making a study to determine whether or not such removed or abandoned property has been properly written off of the books and removed from the plant records of the Wisconsin Telephone Company. This study will require several months to complete. At the present time a complete investigation in this

respect has been made of the De Pere exchange which was part of a purchase made on August 1, 1912, from the Fox River Valley Telephone Company of properties in the exchanges of Appleton, De Pere, Green Bay, Little Chute, New London, Waupaca, Weyauwega, Wrightstown. The study of De Pere shows removed, abandoned, non-used and non-useful cable and conduit to the amount of $4,855 which is still carried in the exchange fixed capital accounts of the Wisconsin Telephone Company, this amount being 20% of the total underground conduit and cable of the De Pere exchange. Similar conditions are known to exist in the Appleton and Green Bay exchanges which have underground conduit and cable of about $430,000. The study has not yet been extended to include other exchanges containing property purchased from independent companies.

This affiant is now making a study of the Company's Plant Measurement record which is the official record of the quantities of plant corresponding to the dollars of fixed capital carried on the Company's books. It is well known to this affiant from his experience and studies of many Bell Telephone Companies whose records and accounts are kept in the same way as those of the Wisconsin Telephone Company, that where the Plant Measurement record and the Company's book costs have not for many years been adjusted to agree with a field inventory of the physical property, substantial differences between the book costs and the plant actually in service almost always occurred. The [fol. 294] books and the Plant Measurement record almost always include more property than is actually in service. In the case of the Wisconsin Telephone Company no check of the Plant Measurement record against the field inventory record has been made since the Plant Measurement record was started in the year 1902 or 1903. This affiant's check of the correctness of the Plant Measurement record has not been completed and will require a period of several months to complete. Up to the present time he has checked the Plant Measurement record of aerial cable in the exchanges of Racine and Mayville. The check of the Plant Measurement record of these two exchanges was made by comparing the quantities shown by that record with the quantities taken from recently completed engineering records of the same plant, in which the quantities were obtained by a careful check made in the field by Company employees. He has found material differences in the quantities of aerial

cable shown by the Plant Measurement record and by these engineering records. In order to obtain a measure of these differences, he has priced the quantities shown by each of the two records at the Company's retirement unit costs, which costs represent the amounts at which such units of plant appear in the Company's fixed capital accounts. For the Racine exchange the amount of aerial cable shown by the Plant Measurement record and correspondingly reflected by the book cost is 17.4% in excess of the amount of aerial cable shown by the Company's new aerial cable engineering record. For the Mayville exchange the excess in the aerial cable account is 10% and in the underground cable account 8.8%.

No other exchanges or classes of plant have been checked up to the present time, but it is the opinion of this affiant that similar excess amounts of plant will be shown by the Plant Measurement record and book cost for many of the outside plant accounts in most of the Company's exchanges.

Affiant further says:

[fol. 295] Reproduction Cost Estimate

Affiant has made an approximate estimate of the cost to reproduce the physical property of the Wisconsin Telephone Company based upon the book costs of the property and the application of index numbers to convert the book costs to values as of December, 1931. The values so obtained have been further modified as will hereinafter appear more in detail to adjust the piecemeal or multi-project method of construction reflected in the book costs to a suitable basis for construction of the Company's property as a whole as a single large project.

The average book cost of the plant for the year, 1931, was $70,882,822.00. If index numbers developed by the Company in connection with its depreciation studies be used as a basis for converting this book cost to the cost level of the Company's recent additions to its property the resulting cost at 1931 price levels is $73,753,576.00. The Company's index numbers above mentioned provide no index for adjustment of the cost of buildings. If an index number for building construction representing the relation of building costs for December, 1931, to the average of construction costs for 1931 and preceding years back to 1913, obtained from published data of the United States

Department of Commerce, be applied to the book cost of the Company's buildings, the total cost of property at 1931 price levels becomes approximately $73,349,078.00, excluding general equipment.

The conversion of book costs to current costs established by a small amount of scattered and piecemeal construction work (which formed the basis of the Company's index numbers), does not constitute a valid estimate of cost of reproduction. The plant has necessarily been built up piecemeal with small additions made when required by the growth of the business. Comparatively few individual jobs in constructing outside plant- have amounted to as much as $1,000.00 for any one class of plant, whereas a project to construct the entire property of the Wisconsin Telephone Company would involve organization of large scale construction in units of hundreds of thousands of [fol. 296] dol-ars. Under such conditions the more efficient employment of labor, reduction in waste or unproductive time, increased proportions of less skilled and lower priced employees, and lower overheads in proportion to direct labor costs would materially reduce the cost of construction. This affiant has made a study of labor costs per productive labor hour including direct labor, local plant administration, overhead and miscellaneous costs and board and lodging, which study shows that the rate per productive labor hour in 1930 and 1931 was very much higher than in previous years. This increase in labor cost is due to the amount of construction work done by the Company during those years being extremely small, and the fact that lower priced men on the construction crews have been transferred elsewhere or have been relieved of their duties. If the property of the Wisconsin Telephone Company were to be constructed as a whole the crews organized for large scale construction would have a greater proportion of less experienced men drawing lower wages than did the construction crews actually used by the Telephone Company in 1931. Affiant's studies show that with a normal organization of construction forces for efficient work on large projects, the rates per productive labor hour and the percentage of overhead would be substantially lower than those included in the Company's index numbers.

After making the adjustments for wholesale construction and for normal organization of construction crews,

the cost to reproduce the property represented by the Company's book costs becomes $64,388,500.00 which is a maximum estimate of the cost to reproduce said property.

The cost of reproducing the portion of exchange property devoted to local use is not in excess of $42,464,270. The portion of the depreciation reserve associated with the local property, converted to reproduction cost level, is not less than $11,181,793. The reproduction cost, less depreciation reserve, of said local property is not more than $31,282,477.

If going value, working capital, and materials and sup-
[fol. 297] plies be added on the same basis as computed by the Company in its bill of complaint and affidavits, the total reproduction cost, less depreciation reserve, on said local property, including the above elements, is not more than $36,230,777.

And further affiant sayeth not.

Cyrus G. Hill.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires Sept. 22, 1935. Hazel Otto, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 298] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF JAMES G. WRAY

STATE OF WISCONSIN,
County of Dane, ss:

James G. Wray, being duly sworn, deposes and says that:

My name is James G. Wray. My home is in Glencoe, Illinois. I am a consulting engineer with offices in the Bankers Building, Chicago.

I graduated from the University of Wisconsin in 1893 with the degree of Bachelor of Science in Electrical Engineering. Immediately after graduating I entered the

employ of the Chicago Telephone Company which was a Bell System Company operating in Chicago and its suburbs. I remained in the employ of that Company until the fall of 1916 when I resigned to go into consulting practice. During my employment I was engaged in various phases of telephone engineering work in the capacities hereinafter included: (A) The testing of lead covered cables, (B) Investigation of electrolysis, (C) Chief of the testing [fol. 299] laboratory, (D) Wiring, installation, and maintenance of central office switchboards, (E) Assistant engineer in the office of the chief engineer, (F) Chief inspector in the maintenance department having charge of the maintenance of telephones and batteries, (G) Assistant superintendent of maintenance in charge of the maintenance of all telephone plants in the Chicago City Division, (H) Assistant superintendent of the City Division in charge of traffic operation and of maintenance, (I) Superintendent of maintenance for the City Division, (J) Superintendent of equipment in entire charge of wiring and installation of central office switchboards in the city and suburban divisions, (K) Chief engineer of the Company, which position I held from 1902 until I resigned in 1916, (L) Chief engineer of the Central Group of Bell Telephone Companies from 1911 to 1916. This group consisted of Chicago Telephone Co., Wisconsin Telephone Co., Michigan State Telephone Co., Cleveland Telephone Co., and Central Union Telephone Co. During part of this period the Central Union Telephone Company was in receivership and I was chief engineer for the receivers. The exchanges formerly served by the Central Group of Bell Telephone Companies are now served by the Illinois Bell Telephone Company, Indiana Bell Telephone Company, Ohio Bell Telephone Company, Michigan Bell Telephone Company, and Wisconsin Telephone Company.

As chief engineer of the Central Group of Bell Telephone Companies, I supervised central engineering department and Company engineering department groups aggregating 400 to 500 employees.

As consulting engineer I have been engaged in investigations in a large number of telephone situations, throughout the United States and Canada and in Europe, South America, the West Indies, the Philippines and the Orient.

I was employed by the Provinces of Alberta and Manitoba to investigate and report on telephone systems owned by those provinces.

I have been employed by a number of public authorities in telephone rate cases including the cities of Syracuse, Buffalo and New York, the state of Mississippi, the Board of Public Utility Commissioners of New Jersey, the De-
[fol. 300] partment of Public Utilities of Massachusetts, the cities of Providence, Philadelphia, Pittsburgh, Seattle, Toronto, Chicago, and others.

I have been employed also by a number of telephone companies in consulting capacities. Among these are the North Western Telephone Exchange Company, the Tri-State Telephone and Telegraph Company, the North Dakota Independent Telephone Company, the Home Telephone and Telegraph Company of Fort Wayne, the Nebraska Telephone Company, the Indiana Bell Telephone Company, the Southwestern Bell Telephone Company.

The J. G. Wray & Company organization, under my direction, has made inventories and appraisals of a large number of telephone properties in the United States and foreign countries.

I was president of the United Telephone Company, operating about 50,000 stations, from 1927 to 1930. I was operating vice-president of the Standard Telephone Company in 1928 and 1929, operating about 45,000 stations. I was president of the Southeastern Telephone Company from 1929 to 1931, operating about 4,000 stations.

I am generally familiar with standards of construction and character of property of the Wisconsin Telephone Company.

I am familiar with the maintenance requirements for such property.

I have read that portion of the opinion and order of the Public Service Commission of Wisconsin dated June 30, 1932, in case 2—U—35, entitled "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Service, Practices, and Activities of the Wisconsin Telephone Company," contained on pages 23 to 39 inclusive under the heading "Maintenance Expenses—Exchange System."

I know that the reports of the Wisconsin Telephone Company filed with the Public Service Commission of Wis-

consin (formerly Railroad Commission of Wisconsin), show that for the entire exchange system taken as a group, with the exception of the Milwaukee and Eau Claire ex- [fol. 301] changes, the maintenance expense per average station was less in 1931 than in 1928 and that the maintenance per average station in 1928 for the entire exchange system was $6.35.

During 1931 the Milwaukee and Eau Claire exchanges were being changed from manual operation to dial operation. Maintenance expenses in those exchanges were very much greater than in prior years when such change was not in process. Maintenance expenses are always greatly increased while the changes in plant are being made that are required for conversion from manual service to dial or automatic service. They are always substantially lower after conversion has been completed than they are while conversion is under way. Maintenance expenses of dial equipment are, however, usually somewhat higher than they are for equivalent manual equipment. The traffic expenses and the total expenses, including maintenance expenses, of dial service are very much less than they are for equivalent manual service.

It is my opinion that necessity for further changes from manual to dial operation will be very considerably postponed because the Company has lost a large number of subscribers during the current depression with the result that the time when existing manual equipment will become inadequate is postponed. High wages of telephone operators and high calling rates or usage of telephone service by the subscribers with low equipment costs may justify conversion from manual service to dial service. Probable lower wages and decreased calling rates due to the depression and the high present cost of dial equipment will tend to postpone further extensions of dial service.

It is my opinion that the exchange maintenance expenses since 1928 have been abnormally high due in large measure to the conversion of manual service to dial service in certain exchanges, that in view of the decline in business, further conversions to automatic need not be made in the near future, and that maintenance expenses which have been incurred in connection with such conversions are abnormal and do not represent a level of maintenance expenses upon which rate schedules should at this time be based.

[fol. 302] Throughout 1928 the Company continued to accrue a reserve to cover drop wire losses. I am of the opinion that $38,558 which was charged to maintenance in 1928 on account of drop wire losses should not have been so charged and that the maintenance of $6.35 per average station in that year exceeded the amount which should have been charged to maintenance account.

I am familiar with changes which have taken place since 1928 in the cost of maintaining telephone properties and with the reductions in expenses which have been possible during the current business depression since 1928, and it is my opinion that $6.35 per year per average station is an entirely adequate amount to properly maintain the exchange system property of the Wisconsin Telephone Company and that under present conditions exchange system maintenance expenses in excess of that amount are unnecessary and wasteful.

I have been intimately connected with the telephone business for practically forty years and am familiar with telephone construction costs during that period and at the present time, and it is my opinion, based upon my experience and knowledge, that the reproduction cost new of the exchange plant and equipment of the Wisconsin Telephone Company as of January 1, 1932, is no greater than the book cost of said property, assuming that the book cost represents the actual reasonable cost of said property.

James G. Wray.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 303] In United States District Court

[Title omitted]

Affidavit of George W. Cummings

State of Wisconsin,
County of Dane, ss:

George W. Cummings, being duly sworn, on oath deposes and says that:

My name is George W. Cummings. I reside in Evanston, Illinois. I am a telephone engineer and have for the past

twelve years been in the employ of J. G. Wray and Company with offices in the City of Chicago, which firm has an extensive practice as consulting and appraisal engineers in the United States, Canada, South America, Portugal, and China; dealing with all questions arising in connection with telephone engineering, including construction costs, valuations, rate schedules, operating expenses and character of service, and I have in the course of my employment by J. G. Wray and Company had to do with all classes of such questions.

[fol. 304] Prior to my employment by J. G. Wray and Company I was for a period of six years between 1914 and 1920 in the employ of the City of Chicago as chief of the City Telephone Bureau, where it was my duty to keep informed on all matters relating to telephone service in said City and to advise the Mayor and City Council. In that connection I was actively concerned in various negotiations between the City of Chicago and the Chicago Telephone Company and in hearings before the Public Utilities Commission of Illinois in respect to telephone rates in the City of Chicago.

During the nineteen years prior to my employment by the City of Chicago I was in the employ of various telephone operating and manufacturing companies, engaged in the construction, maintenance and operation of telephone properties. I have been continuously employed in the telephone business for the past thirty-seven (37) years.

During all of this time and especially during the past twelve years it has been a part of my duty to keep informed in respect to cost trends, and in that connection I keep and for many years have kept current statistics of material and labor costs and have made cost studies of many telephone properties throughout the United States, Canada, South America, and Portugal.

During the past six years the general trend of commodity prices, as compiled and computed by the United States Department of Labor, has been downward; until in June, 1932, it was sixty-four per cent (64%) of the average level during 1926.

During the same period the general trend of prices of raw material, as compiled and computed by the United States Department of Labor, has been downward, until in June, 1932, it was fifty-three per cent (53%) of the 1926 average.

During the same period the general trend of prices of semi-manufactured goods, as compiled and computed by the United States Department of Labor, has been downward, until in June, 1932, it was less than fifty-eight per cent (58%) of the 1926 average.

[fol. 305] During the same period the prices of finished products decreased in a similar manner although to a less extent, the June, 1932, average level being seventy per cent (70%) of the 1926 average.

The prices of copper and lead, which are largely used in telephone plants, have decreased much more substantially than the prices of commodities in general; until in June, 1932, the average price of copper was thirty-seven per cent (37%) of the 1926 average, and of lead was thirty-six per cent (36%) of the 1926 average.

The prices of equipment and other materials manufactured by the Western Electric Company and sold by it to the companies of the Bell System, including the Wisconsin Telephone Company, have not followed the downward price trends of general commodities, raw materials, semi-manufactured goods, finished products, or copper and lead; in that while the trend of equipment prices was downward until 1930 it increased during 1930 and again during 1931, and while the prices of lead covered cable dropped during 1930 as a result of the drop in copper and lead prices, they showed no corresponding drop during 1931, although the prices of copper and lead continued their sharp decline during that year. These trends are shown in two charts attached to this affidavit. (See, pages 119 and 120.)

In the absence of a detailed inventory it is impossible to determine the precise weighting of equipment and other material prices as affecting the plant of the Wisconsin Telephone Company in order to compute the exact price trend, but from my general knowledge of the type of plant in Wisconsin (such knowledge being based partly on personal observation and partly on reports from other employes of J. G. Wray and Company), I am of the opinion that—for each class of plant—the price trend of the plant of the Wisconsin Telephone Company would not be very different from that in Chicago.

During 1932 the Illinois Bell Telephone Company has submitted to the Statutory Court in Chicago certain appraisals of its property in the City of Chicago, said appraisals being

prepared and testified to on behalf of said company by W. F. Sloan, a consulting engineer with offices in Chicago.

[fol. 306] In his testimony in respect to these appraisals Mr. Sloan stated that the material prices used in said appraisals were taken from the current price lists furnished by the Western Electric Company, and I compared a large number of the material prices used by said Sloan with Western Electric price lists in the possession of J. G. Wray and Company and of the Illinois Bell Telephone Company and found no differences between them.

It is a matter of record in various hearings and I am informed and believe that said Western Electric price lists are uniform to all associated telephone companies in the Bell System, which includes the Wisconsin Telephone Company and the Illinois Bell Telephone Company.

I have made various computations from said appraisals of the Chicago plant which were prepared and submitted by W. F. Sloan as aforesaid, and have found that the material prices used therein for the various classes of plant show the following trends as of December 31st of each year:

	1926	1927	1928	1929	1930	1931
Central Office Tel. Equipment:						
Manual	100	96	84	80	95	97
Dial	100	97	90	86	98	98
Station Apparatus	100	99	93	79	79	78
P.B.X. (non-multiple)	100	96	90	84	92	92
Aerial Cable	100	93	87	95	87	88
Underground Cable	100	94	88	102	84	84

The material items which comprise the various classes of plant listed above together constitute very much the larger part of the equipment and other materials which are manufactured by the Western Electric Company and sold by it to the associated telephone companies of the Bell System, including the Wisconsin Telephone Company; and in my opinion similar trends would be found in the prices of the equipment and other materials purchased by said Wisconsin Telephone Company from said Western Electric Company.

[fol. 307] I am informed and believe that in computing the prices to be paid by the associated telephone companies of the Bell System, including the Wisconsin Telephone Company, the Western Electric Company includes in such computation a substantial factor for factory overhead, which factor, when distributed over the factory output, varies inversely with the volume of that output. This method of com-

putation will, as a mathematical consequence, have a tendency to increase prices during a period of reduced output such as the present.

From a comparison between the above trends of Western Electric prices for telephone equipment and other materials and the price trends of general commodities, raw materials, semi-manufactured goods, finished products and copper and lead, I conclude that the trend of Western Electric prices is at variance with the general price trend throughout the United States, and that in the case of central office equipment in particular during 1930 and 1931 it goes counter to such trend.

George W. Cummings.

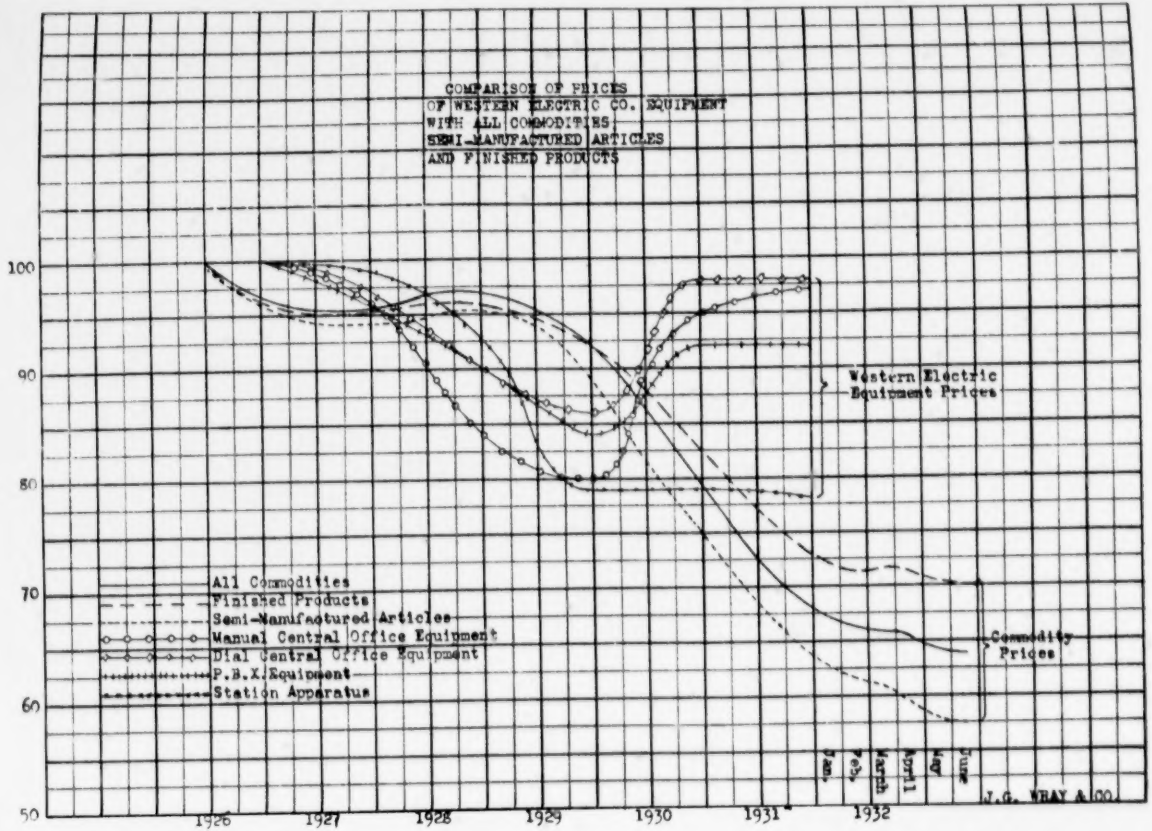
Subscribed and sworn to before me this 15th day of August, 1932. My commission expires April 16, 1933. M. N. Robertson, Notary Public, Cook County, Illinois. (Seal.)

(Here follow two charts, side folios 308 and 309.)

494A

308

COMPARISON OF PRICES
OF LEAD COVERED CABLE
WITH PRICES OF
COPPER, LEAD AND RAW MATERIALS
Percent of 1926 Average
Copper
Lead
Raw Materials
Aerial Cable
Underground Cable
J. G. Fay & Co.
1926
1927
1928
1929
1930
1931
1932
Jan.
Feb.
Mar.
Apr.
May
June


COMPARISON OF PRICES
OF WESTERN ELECTRIC CO. EQUIPMENT
WITH ALL COMMODITIES
SEMI-MANUFACTURED ARTICLES
AND FINISHED PRODUCTS
100
90
80
70
60
50
1926
1927
1928
1929
1930
1931
1932
Jan.
Feb.
March
April
May
June
Western Electric Equipment Prices
Commodity Prices
All Commodities
Finished Products
Semi-Manufactured Articles
Manual Central Office Equipment
Dial Central Office Equipment
P.B.X. Equipment
Station Apparatus
J.G. GRAY A.100

49411
309

[fol. 310] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF E. W. MOREHOUSE

STATE OF WISCONSIN,
County of Dane, ss:

E. W. Morehouse, being duly sworn, deposes and says:

I am a graduate of Amherst College, A. B. 1918, and pursued graduate work in economics at the University of Wisconsin, receiving the degree of M.A. in 1920 and Ph.D. in 1927. From 1919 to 1920 and from 1921 to 1925 I was an assistant or instructor in Economics at the University of Wisconsin. From 1925 to 1928 I was Assistant Professor of Economics and from 1928 to 1931 Associate Professor of Economics at Northwestern University, Chicago, Illinois. Since 1923 I have also been a Research Associate in the Institute for Research in Land Economics and Public Utilities (now called the Institute for Economic Research) engaged in research work in public utility economics. In addition to this research work, I served as Managing [fol. 311] Editor of the Journal of Land and Public Utility Economics—a quarterly scientific periodical. Since 1931, I have been connected with the Public Service Commission of Wisconsin as Chief Economist and Director of the Rates and Research Division.

A study of the weighted average yield at offering price to investors of long-term debt issues exceeding $2,500,000 par value each by public utility operating companies throughout the country has been made under my supervision. These yields are classified by the ratings of the bonds; that is, Aaa, Aa and A. The cost of borrowed capital, measured by the average yield at offering price of Aaa bonds, was 4.31% in the first six months of 1931 and 5.21% in the first six months of 1932. Studies have been made under my supervision of the "cost of financing" (so-called bankers' margins), of long-term debt issues of class A telephone companies for the years 1922 to 1930, inclusive. Only long-term debt issues exceeding $2,500,000 par value were used. The cost of financing was measured by obtaining the difference between (1) the weighted

average yield at price received by the Company and (2) the weighted average yield at offering prices to investors. For class A telephone company long-term debt issues from 1922 to 1930, inclusive, this margin averaged 0.25%. The cost of financing of the Bell operating companies for the same years averages 0.24%. On the basis of the foregoing costs, it is my opinion that if the Wisconsin Telephone Company were now to issue bonds of $15,000,000 par value, such an issue or issues could be sold economically at a cost to the Company not exceeding 5.6%. This takes into account the rate adjustments ordered on June 30, 1932, in 2—U—35. This also takes into account the fact that the Wisconsin Telephone Company has only a very small amount of funded debt outstanding and a relatively small amount of preferred stock outstanding, whereas the normal capital structure of a public utility company includes long-term funded debt in excess of 40% of the total of funded debt, preferred stock and common stock equity. If such addition of $15,000,000 par value of debt securities were made, this long-term debt would constitute less than 30% of the Wisconsin Telephone Company's capital structure, as above defined.

[fol. 312] The Company recites that "For a long time prior to June 30, 1932, and on said date and ever since said date, a fair return on property used and useful in the conduct of the telephone business in Wisconsin was and is not less than 8% per annum." Studies have been made under my supervision of the rates of return received by thirty-one telephone companies, including the American Telephone and Telegraph Company, Wisconsin Telephone Company, eighteen other Bell operating companies, and eleven independent (non-Bell) operating companies. These studies covered the years 1921 to 1930, inclusive. The rates of return expressed as the ratio of income after rent and depreciation but before interest to average earning assets were as follows for the ten-year period:

For the Bell operating companies, excluding the Wisconsin Telephone Company, 5.69%;

For the twenty-nine Bell and independent companies, 5.84%;

For the Wisconsin Telephone Company, 6.30%.

Studies have been made under my supervision of the gain and loss of stations by the Wisconsin Telephone Company. These studies indicate a net loss of company stations for the first five months of 1932 in excess of 8,000. The last monthly station report recently submitted by the Company to the Commission indicates a net loss of Company stations for the first six months of 1932 in excess of 15,000. It is my opinion that station losses of this magnitude, considered in the light of the trends of other prices, indicate that the present rates of the Wisconsin Telephone Company exceed the value of the service to large numbers of subscribers.

E. W. Morehouse.

Subscribed and sworn to before me this 16th day of August, 1932. Geo. Brown, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 313] In United States District Court

[Title omitted]

Affidavit of George C. Mathews

State of Wisconsin,
County of Milwaukee, ss:

George C. Mathews, being duly sworn, deposes and says:

I am a graduate of the University of Wisconsin, class of 1908, and after two years of teaching entered the employ of the Railroad Commission of Wisconsin in the summer of 1910. On or about December 1, 1912, I was placed in charge of the Statistical Department of the Commission having to do with rates, accounting, and statistics of public utilities. Except for a period of somewhat less than one year, I have been continuously employed by the Commission since 1910 and was in charge of the Statistical Department until the summer of 1931. During the school year 1924-1925 I was Professor of Public Utilities at Northwestern University School of Commerce. On February 1, [fol. 314] 1925, I was appointed Director of the Securities Division of the Railroad Commission of Wisconsin and

still hold that position with the Public Service Commission of Wisconsin.

As Director of the Securities Division I have had occasion to pass upon many applications for permits to sell securities in Wisconsin, including a large number of applications for permits to sell securities of public utility companies.

Prior to 1930 there was a ready market for bonds of utility operating companies of substantial size whose earnings had been not more than 2½ times interest on outstanding debt and the bonds about to be issued, before provision for depreciation, and whose earnings were not in excess of 1¾ to 2 times such interest after provision for depreciation. During the depression which has prevailed since that time and particularly during the last year the market for bonds of utility operating companies has been less favorable but there has been a ready market for bonds of large operating companies with earnings of less than 3 times interest on outstanding and prospective debt issues after provision for depreciation.

I am familiar with the reports which have been filed with the Public Service Commission of Wisconsin and its predecessor, Railroad Commission of Wisconsin, by Wisconsin Telephone Company, including the report for the year 1931.

On December 31, 1931, Wisconsin Telephone Company had no funded debt outstanding except $50,000 due on a land contract for the purchase of real estate. On that date it had notes outstanding to Bankers Trust Company "Pension Fund Trustee" of $2,049,606.21 and owed $2,400,000 to American Telephone & Telegraph Company on account of advances from that company. According to my information and belief the current rate of interest on the notes to Bankers Trust Company is 4% and on the advances from American Telephone & Telegraph Company is 5.88%. It had outstanding $4,947,000 of 7% cumulative preferred stock and $40,000,000 of common stock.

[fol. 315] Except for the items mentioned above, its liabilities were current and accrued liabilities incident to the conduct of its business.

If the earnings of the Company were only sufficient to equal 4% upon the outstanding common stock, the amount

of earnings available as interest on any mortgage debt which the Company might issue would be as follows based upon balance sheet figures at December 31, 1931:

4% interest on $2,049,606.21 notes to Bankers Trust Company	$81,984.25
5.88% interest on $2,400,000 advances from American Telephone & Telegraph Company	141,120.00
7% dividend on $4,947,000 of preferred stock	346,290.00
4% of $40,000,000 common stock	1,600,000.00
	$2,169,394.25

A total of $2,169,394.25 would be more than 4 times the amount of 5% interest on $10,000,000 of bonds and more than 3½ times the amount of 6% interest on $10,000,000 of bonds. It would be more than 2½ times the amount of 5% interest on $17,000,000 of bonds, more than 2½ times 5½% interest on $15,500,000 of bonds, and more than 2½ times 6% interest on $14,400,000 of bonds. It is my opinion that even if the earnings of Wisconsin Telephone Company were not in excess of an amount equal to 4% upon the outstanding common stock, that Company would have no difficulty, even under present conditions, in selling as much as $15,000,000 of bonds maturing in twenty years with a coupon rate of not to exceed 5½%, and to yield the Company not less than 95% of par, and it is my opinion further that if such $15,000,000 of bonds were offered in lots so that approximately one-third of them were to be sold in each of three years, with earnings as assumed, Wisconsin Telephone Company would have no difficulty in selling [fol. 316] them to yield not less than 95% of par and carrying a coupon rate of not to exceed 5% per annum.

George C. Mathews.

Subscribed and sworn to before me this 16th day of August, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 317] Service of the within affidavits admitted this 7 day of September, 1932.

Edwin S. Mack, F.S., Frederic Sammond, Solicitors for Complainant.

[fol. 318] In United States District Court

[Title omitted]

Reply Affidavits and Notice Thereof—Filed Sept. 21, 1932

Receipt of copy of the within affidavits admitted this 16th day of September, 1932, reserving and not waiving the defendants' rights to object to said affidavits or move to strike the same or otherwise move with reference to the same.

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for All of the Defendants.

[File endorsement omitted.]

[fol. 319] In United States District Court

[Title omitted]

Notice of Reply Affidavits

To John W. Reynolds, Attorney General; Samuel Bryan, Assistant Attorney General; Alvin C. Reis, Special Counsel, solicitors for the above-named defendants:

Please take notice that the complainant will file and make a part of the record in the above entitled suit and will present and use at the hearing of the application of the complainant for an interlocutory injunction in the above entitled suit, as well as on and in connection with any matter in said suit to which the same may be pertinent, the reply affidavits [fol. 320] hereto annexed, to-wit: the affidavits of George F.

Crowell, Maynard A. Cook, Edward A. Fritz, Frank M. McEniry, Joseph F. Krizek, Charles A. Heiss, E. V. Cox, Arthur D. Welch, and two affidavits of R. H. Gregory.

Dated September 16, 1932.

Edwin S. Mack, Frederic Sammond, Solicitors for Complainant. Miller, Mack & Fairchild, of Counsel.

[fol. 321] In United States District Court

[Title omitted]

Affidavit of George F. Crowell

State of Wisconsin,
Milwaukee County, ss:

George F. Crowell, being duly sworn, on oath deposes and says:

I am the same George F. Crowell who made an affidavit herein, verified the 27th day of July, 1932, and also an affidavit herein verified the 6th day of September, 1932, and am Chief Engineer of the complainant.

I have read the affidavit of Cyrus G. Hill, the affidavit of James G. Wray, the affidavit of Asel R. Colbert, all verified August 16, 1932, and the answer of the defendants herein.

Property Alleged to be Not Used or Useful for Exchange Purposes

I have given careful consideration to the statements contained on pages 7, 8 and 9 of the said affidavit of Cyrus G. Hill (being pages 55, 56 and 57 of defense affidavits) relative to conduit and cable of the complainant alleged to be not [fol. 322] used and useful for exchange purposes. All conduit and cable owned by the complainant are charged to toll and exchange fixed capital accounts, respectively, in accordance with the accounting instructions, a part of which are quoted in said affidavit of Hill. In a plant such as the complainant's, certain items of property, including conduit, are used for both toll and exchange purposes and they are classified in the property between exchange and toll accord-

ing to their primary or "major use" in accordance with the said accounting instructions as quoted in said affidavit and the accounting requirements of the Interstate Commerce Commission. Each conduit run consists of a number of ducts and, in many of the conduits of the complainant, some ducts are provided for use of American Telephone & Telegraph Company and the remaining ducts are for use of the complainant. It is also true that some toll cables are jointly used similarly by the two companies. In many of such cases, the conduits and the cables are jointly owned by the two companies in proportion to their use, requirements and the portion of the conduit or cable assigned for use of American Telephone & Telegraph Company is not included in the investment accounts or the plant measurement records of the complainant. In all other cases of such joint use, the conduit or cable conductors used by American Telephone & Telegraph Company are rented to that company and the rent is included in the complainant's gross revenues. In the valuation and allocation of property set forth in my said affidavit and that of Edward A. Fritz verified September 6, 1932, property thus rented was duly allocated in accordance with rental revenues.

With reference to the statement of said Hill that conduit was constructed by the complainant for American Telephone & Telegraph Company under adverse weather conditions in order to meet the schedules of the latter company [fol. 323] for putting its toll cables into service, it is presumed that said Hill has reference to one project of work in Madison, Wisconsin, during the winter of 1929-1930, as to which James G. Wray testified before the defendant Commission and possibly also to placing conduit in the vicinity of Oshkosh and Appleton in the winter of 1929-1930. The said projects were for the use of both the complainant and American Telephone & Telegraph Company and the schedules of putting conduits and cables into service were joint schedules developed for the needs of both of said companies.

The foregoing statements relative to the conduit and cable of complainant generally are true of the particular underground conduits at Madison, Oshkosh, Appleton, Fond du Lac and Stevens Point mentioned by said Hill at pages 8 and 9 of his affidavit. I have identified these particular construction projects as to which Mr. Hill asserts that $332,472 included in complainant's exchange fixed capital

accounts should be classified as toll or charged to American Telephone & Telegraph Company. The total cost of these particular projects, exclusive of Madison, was $407,237, of which amount $138,207 was charged to and paid for by American Telephone & Telegraph Company, being approximately 34%. The item of $61,442, mentioned by Mr. Hill at page 8 of his affidavit relative to the Madison exchange, is a composite result of certain conclusions and assumptions made by said Wray in his testimony before the said Commission, which assumptions and conclusions are in my opinion unfounded and incorrect. All of these projects cover both main exchange as well as toll routes of the complainant and were not constructed exclusively or primarily for toll purposes, but on the contrary were constructed for both services of which the exchange service requirement will be the larger and, therefore the primary or major use.

[fol. 324] With reference to said Hill's comments upon property purchased from other telephone companies, at page 9 of his affidavit, I have noted particularly his statement that about 20% of the underground conduit and cable at DePere is removed, abandoned, non-used and non-useful, the amount so claimed being $4,855, which is less than 1/100 of 1% of complainant's entire investment in physical property. After stating that the said amount comprises about "20% of the total underground conduit and cable of the DePere exchange", the said statement continues: "Similar conditions are known to exist in the Appleton and Green Bay exchanges which have underground conduit and cable of about $430,000." The DePere exchange is a comparatively small one and while in relation to the total amount of the exchange underground conduit and cable contained in the complainant's present investment in said exchange, the investment added in the said purchase of 1912, which is described by said Hill, was about 55%, the actual amount of it was $8,554. In the larger exchanges at Appleton and Green Bay, the property comprised in said purchase in 1912 amounted to only 4.6% and 16.3%, respectively, of the total present investment of $430,000 in underground conduit and cable at these exchanges. Consequently, the comparison of conditions in the Appleton and Green Bay exchanges with the DePere exchange, as made by said Hill, is erroneous and misleading.

Complainant's Plant Measurement Record

I have noted the statement of the said Hill in his affidavit at page 10 thereof that "no check of the Plant Measurement Record against the field inventory record has been made since the Plant Measurement Record was started in the year 1902 or 1903." The said plant measurement records were started in 1914, at which time a detailed in-[fol. 325] ventory was available of the Milwaukee exchange plant and was used with data from other exchanges as the basis of said records. In 1920, the form of the record was changed and the present form adopted and at that time all quantities were adjusted, based upon checks of engineering records and conditions in the field. Since then, adjustments have been made from time to time in connection with field inventories available for some exchanges.

I have also noted the statements of said Hill in his affidavit (at pages 10 and 11 thereof) relative to comparisons made by him between complainant's recently completed engineering records of the Racine and Mayville exchanges with the plant measurement record of said property and his allegations of percentage variation between the said engineering record and the said plant measurement record.

With reference to the said Hill's comparison and derivation of a percentage relationship between the complainant's book costs or investments in these exchanges and the said engineering study, the two amounts should not correspond and any correspondence between them would be purely accidental because the prices applied by said Hill to the quantities disclosed by the said engineering records were based on complainant's retirement unit costs which are average unit costs of all the units of a certain kind in complainant's entire plant. The comparison of an amount in dollars thus attained by use of an average of ninety-six exchanges with complainant's actual investment in one specific exchange in meaningless, because it would depend upon the accidental relationship of complainant's investment in the particular exchange to complainant's average investment throughout the State. However, the pricing of quantities of plant disclosed at a given exchange by the plant measurement record and the pricing of the quantities disclosed at the same plant by the complainant's engineering records, using the same set of prices, would produce figures which are com-

[fol. 326] parable. The percentages derived by said Hill from a comparison of these elements, as stated by him in the case of the Mayville and Racine exchanges, are incorrect, but I do not know in what manner his error was made. A similar analysis made by me of the same data produces very different results, as is hereinafter set forth.

The engineering records to which said Hill refers comprise maps and other forms of records of the actual plant existent in certain exchanges which, as stated by said Hill, have been recently completed and were obtained by a careful check in the field. From these data, quantities of plant may be determined and by pricing with complainant's retirement unit costs may be compared with quantities contained in the plant measurement record, similarly priced. The work of collating or "taking off" the quantities from the engineering data involves a considerable amount of labor. While engineering data of this kind is available for a large number of complainant's exchanges, at the time the said affidavit of Hill was served upon the complainant, data had already been drawn under my direction from the said records and made ready for use in the case of seven of such exchanges, this work having been done in the ordinary conduct of the complainant's business and prior to the institution of this suit, these exchanges being Milwaukee, Mayville, Watertown, Oconomowoc, Whitewater, Hartland and Evansville. Subsequent to the service of the said affidavit upon the complainant, I caused to be prepared and assembled similar data relative to the Racine exchange in order to have available the comparison of property at the two exchanges, to-wit: Mayville and Racine, which are discussed by said Hill.

A comparison of the aerial and underground cable as determined from the said engineering records and as deter- [fol. 327] mined from complainant's plant measurement record, as of the same dates, when priced with the said prices, is as follows:

Comparison of Investments

Exchange	Date of engineering record	Quantities of aerial and underground cable priced at retirement unit costs: Plant measurement record	Engineering measurement record
Milwaukee	12-31-31	$6,097,361	$6,282,625
Mayville	6-30-32	22,045	23,503
Watertown	12-31-29	48,015	46,679
Oconomowoc	3-31-30	48,202	45,155
Evansville	3-31-30	14,230	13,677
Whitewater	1-31-29	21,145	20,679
Hartland	1-31-30	19,263	16,620
Racine	7-31-32	544,344	481,568
Total of above		$6,814,605	$6,930,506

The foregoing study discloses that the quantities found in the field, as recorded in the engineering measurement record, were 101.7% of the quantities appearing in the plant measurement record. Although only eight exchanges are included in the foregoing study, the inclusion of the comparatively large Milwaukee exchange has resulted in including in the forgoing study 61.98% of complainant's aerial and underground cable, as measured by its investment therein.

The plant measurement record which I have referred to above is that which I described in my said affidavit of September 6, 1932 as substantially accurate and reliable and is the source from which I obtained the quantities for pricing in determining the reproduction cost new of complainant's property as set forth in said affidavit.

Reproduction Cost Estimate

Said Hill reduces the amount of the valuation originally stated by him to adjust for the so-called "piece-meal" construction, apparently basing his judgment on his statement [fol. 328] that "Comparatively few individual jobs in constructing outside plant have amounted to as much as $1,000.00 for any one class of plant". I am of the opinion that for the purpose of determining the extent to which piece-meal construction enters into the complainant's plant, the amount of said plant which has been constructed in small projects is a better criterion than the number of individual jobs below a particular cost. From data which I have available, I have determined that in 1930 about 80%

and in 1931 about 66% of the total additions to all classes of plant and equipment were made in connection with specific jobs costing $2500 or more each and of the outside plant to which the said Hill refers in the same periods the corresponding percentages are 87% and 73%, if exchange aerial wire work be excluded. In complainant's plant, there were 98 jobs of construction on outside plant costing more than $2500 each in 1930 and averaging in cost about $45,000 and in 1931 there were 76 such jobs averaging each about $25,000. As stated in my said affidavit, verified September 6, 1932, in determining reproduction cost new of complainant's plant and equipment, I reduced the valuation of central office equipment (the investment in which is greater than any other class of complainant's plant and equipment) by 17%, as an allowance for piece-meal construction. In so doing, I excluded certain specific properties which were in fact constructed as a unit. The valuations made by me and set forth in my previous affidavits in this matter were based on reproduction of the property as a single operation and not piece-meal.

In determining the reproduction cost new less depreciation for complainant's plant and equipment as presented in my said affidavits, I reduced the reproduction cost new by the amount of actual existing depreciation which would be ascertained by physical inspection based upon my own knowledge of the property. My conclusions in this respect were substantially supported by the study of this subject [fol. 329] presented by William F. Sloan in his affidavit executed September 6, 1932. I have noted that said Hill has reduced the amount he has determined as reproduction cost new, as stated in his said affidavit, by an amount representing complainant's book depreciation reserve after converting the same to 1931 cost levels. I have never known of an engineering valuation of a property in which his method has been followed and I am of the opinion that it is fundamentally unsound in reaching a valuation as it comprises deducting from an inventory of property as it exists, an allowance for depreciation which has no relationship to the actual existing depreciation in the property.

Dial Conversion and Maintenance

I have noted the statements in the said affidavit of J. G. Wray, on pages 3 and 4 thereof, relative to changes of com-

plainant's plant from manual service to dial or automatic service and his opinion that necessity for further changes will be considerably postponed. In my said affidavit dated July 27, 1932, I stated that the gradual conversion of exchanges to the new type of equipment is wise and necessary and that the conversions in progress could not be discontinued or postponed for any appreciable length of time without great waste of money and decrease of employment. The said conversion of property is necessarily made upon a long time program of gradual accomplishment. It is expected that the conversion work in Milwaukee will continue with as much uniformity as possible for approximately ten years to completion. The conversion of a telephone office requires from one to two years actual work, in addition to anticipation several years in advance in order that adequate preparation and co-ordinating plans may be made.

As stated by said Wray in his said affidavit, maintenance expenses for dial equipment are somewhat higher than for [fol. 330] equivalent manual equipment; and this is true. However, this fact has not been reflected in the allowance for maintenance in the order of the said Commission nor is it reflected in any of the computations presented in the answer of the defendants' affidavits, although the fact is that complainant has a substantial portion of its plant now operating on the dial or automatic basis.

I have given careful consideration to the statements made by the said Colbert in his affidavit relative to depreciation. The rates stated by said Colbert, at page 3 of his said affidavit, as the reasonable rates of depreciation for four specific classes of plant, to-wit: exchange manual central office equipment, station apparatus, private branch exchanges, and booths and special fittings, are inadequate rates, while reasonable rates for the said classes of equipment are those used by the company, as listed by the said Colbert.

The statements made by said Colbert, at page 3 of his affidavit and at page 8 of his affidavit, that certain property accounts are depreciated more than 100% of their original cost, less estimated salvage and that certain depreciation reserves are excessive even though the property account is not completely depreciated are unfounded. The complainant does not maintain depreciation reserves for classes of property and does not make charges to operating ex-

penses on account of classes of property, but instead makes charges to operating expenses for depreciation on its plant and equipment as a whole; all of which is more particularly set forth in the affidavit of Edward A. Fritz, verified this day. However, even if it were correct to subdivide the reserve on a "historical" basis according to classes of property, as is claimed by said Colbert, the subdivision made by him is erroneous, and no such subdivision has been correctly made by anyone to the best of my knowledge and belief. Therefore, such comparison of a reserve for a [fol. 331] class of property with the investment in that property is not possible at present.

With reference to the specific reason stated by said Colbert on page 4 of his affidavit in support of his allegation that the rate of depreciation on exchange manual central office equipment should be 5.7% per annum and not 7½% per annum, which is the reasonable rate used by the complainant, I state the following: Even though it is true that the service life study of this class of equipment was based upon both exchange and toll manual equipment, it is a fact that the same rate is the correct rate for exchange manual equipment alone if determined by a separate study. The "turn-over study" referred to by said Colbert is not applicable to central office equipment, as is fully set forth at page 20 of my said affidavit of September 6, 1932. The rapid growth of toll manual central office equipment with relation to the growth of exchange manual central office equipment has not resulted in shorter estimated service life for this toll property. The statement of Colbert that a prolongation of the life of exchange manual equipment results from the current decrease of telephone business is misleading. The current decrease in the telephone business is not a material factor affecting average service life or depreciation rates for the reason that such depreciation rates for central office equipment are based upon an overall life for individual central offices of such length that temporary changes in the rate of growth of business become immaterial. The statement that the ratio of the reserve on exchange manual equipment to the service value of the account has been maintained at any given level is incorrect because no such reserve exists. I am familiar with the study made by said Colbert in which he purported to determine certain reserves according to his own methods and assump-

tions and am of the opinion that they are incorrect. However, if they were correct, the conclusions drawn therefrom by said Colbert in his said affidavit in connection with the [fol. 332] relative levels of the exchange and toll equipment reserves are not sound and result only from recent special retirements of large amounts of toll equipment and from installations of new toll equipment. A rate of 5.7% per annum if used for the remaining life of the present exchange manual central offices will be inadequate to cover the original cost of such equipment, less salvage thereon even on the assumption made by said Colbert that there is a reserve already accrued thereon.

With reference to the statements of said Colbert in his affidavit at page 5 relative to a reasonable rate for depreciation of station apparatus, I state the following: The service life experience of the complainant for station apparatus for the period ending December 31, 1931, was 6.3 years and recognizing the recent changes of conditions which would result in reducing service life due to dial conversion, substitution of hand sets for desk sets and more rapid turn-over of stations, the complainant is now using an estimated service life of 6 years. The statements relative to salvage realized on station apparatus contained in said Colbert's affidavit are incorrect for the reasons stated in my said affidavit of September 6, 1932. The conclusions of said Colbert that a depreciation rate of 5% would build up an excessive depreciation reserve and that a rate of 3.2% would build up an adequate depreciation reserve on station apparatus are incorrect because, aside from the fact that complainant does not have depreciation reserves for classes of property, the complainant's method, by which the said rate of 5% was determined, is based upon the considerations presented hereinbefore and in my said affidavit of September 6, 1932.

With reference to the statements by said Colbert relative to depreciation of private branch exchanges and on booths and special fittings, the reasons given by him in support of the depreciation rates which he alleges to be accurate, are [fol. 333] based entirely upon his erroneous treatment of salvage estimates on said property, which estimates are incorrect and erroneously apply the facts, for the reasons stated in my said affidavit of September 6, 1932.

With reference to the statement made by said Colbert that the company does not make provision for "depreciation contingencies", the facts are that the complainant's depreciation reserve is maintained in accordance with the instructions of the Interstate Commerce Commission set forth in Exhibit E.A.F. No. 8 to the affidavit of Edward A. Fritz verified September 6, 1932, and covers in addition to provisions for losses through wear and tear, also retirements or losses from obsolescence or inadequacy or public requirement, losses by casualty not covered by insurance, and extraordinary repairs, all of which losses result from contingencies to occur in the future.

With reference to the statement in the affidavit of said Colbert relative to the order of the Interstate Commerce Commission, dated July 28, 1931, requesting that the depreciation reserve of telephone companies be broken down in component parts, I am thoroughly familiar with the said order of the Interstate Commerce Commission, and have studied it and discussed it with other telephone engineers. I am of the opinion that the said order does not contemplate or permit the breaking down of a depreciation reserve in the manner used by said Colbert, but instead contemplates that only for purposes of analysis and not for corporate ledger or balance sheet purposes there shall be a break-down in accordance with the amount of accrued depreciation on a given date in the depreciable property itself.

(Signed) George F. Crowell.

Subscribed and sworn to before me this 16th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 334] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF MAYNARD A. COOK

STATE OF ILLINOIS,
County of Cook, ss:

Maynard A. Cook, being first duly sworn, deposes and says:

I am a member of the firm of Sloan & Cook, Consulting Engineers, with offices in Chicago, Illinois.

I am the same Maynard A. Cook who made affidavit in this case verified September 6, 1932, wherein my experience and qualifications are stated.

I have read the affidavit of Cyrus G. Hill, which was verified on August 16, 1932, with particular reference to his opinion that the plant measurement records of the Wisconsin Telephone Company and other Bell Telephone Companies usually include more property than is actually in service.

I am, in general, familiar with the methods used by the Wisconsin Telephone Company in maintaining its plant measurement records, which said records were those used by George F. Crowell in the preparation of his appraisal of the property of the Wisconsin Telephone Company as of January 1, 1932 and July 1, 1932. Based upon my studies and my personal knowledge of the properties and records of other telephone companies of the Bell System, I state that [fol. 335] the methods used by the Wisconsin Telephone Company in maintaining its plant measurement records are similar to those used by other Bell Telephone Companies.

In respect to the Cincinnati and Suburban Bell Telephone Company, which renders telephone service in the City of Cincinnati, Ohio, and surrounding territory, our organization in 1925, under my direct supervision, prepared an inventory of the property of that company included in the Station Equipment and the Outside Plant accounts from their plant accounting records. In order to verify the accuracy of these records, we made a careful check in the field of the quantities shown by them. The results of this field check showed that the plant measurement records of that Company were substantially correct. The results further showed

that the plant measurement records in general tended slightly to understate the quantities of plant found in the field.

Based on this specific check, as well as on my general knowledge gained from direct contact with the plant measurement records of other companies, I am of the opinion that the plant measurement records of the Wisconsin Telephone Company, as well as of other Bell Telephone Companies, state with a substantial degree of accuracy the quantities of plant indicated therein, and that such minor inaccuracies as may exist in said records likely as not consist of an understatement of quantities as of an overstatement.

(Signed) Maynard A. Cook.

Subscribed and sworn to before me this 15th day of September, 1932. My commission expires March 2, 1935. (Signed) E. D. Meyers, Notary Public, Cook County, Illinois. (Seal.)

[fol. 336] In United States District Court

[Title omitted]

Affidavit of Edward A. Fritz

State of Wisconsin,
Milwaukee County, ss:

Edward A. Fritz, being duly sworn, on oath deposes and says:

I am the same Edward A. Fritz who made an affidavit herein, verified the 27th day of July, 1932, and also an affidavit herein verified the 6th day of September, 1932, and am General Auditor of the complainant.

I have read the affidavits of John H. Bickley, Asel R. Colbert, Cyrus G. Hill and J. G. Wray, all verified on August 16, 1932, and the answer of the defendants herein.

With reference to the allegation on page 12 of defendant's answer that the complainant "has treated as intrastate telephone business all toll business listed in its accounts as miscellaneous toll which involves service across state boundaries and that said latter business is interstate business," the fact

is that in my said affidavit of September 6, 1932, all service across state boundaries has been treated as interstate busi- [fol. 337] ness, whether listed in complainant's accounts as miscellaneous toll or otherwise.

With reference to various statements in said affidavits of defendants (particularly at pages 15, 16, 17, and 18 of the affidavit of said Bickley; pages 3, 4, 5 and 6 of the affidavit of said Colbert; page 13 of the affidavit of said Hill), which allege or imply that the complainant maintains or has upon its books any depreciation reserve for any class of its property, either according to particular types of property or according to the portions of plant allocated to classes of service, such as exchange, local, toll, intrastate and interstate, the fact is that the complainant in its books of account and in all other records has now, and at all times heretofore has had, only one depreciation reserve covering its plant and equipment.

I have read the reports submitted to the defendant Commission by said Colbert on the subject of depreciation and admitted into evidence before the said Commission, being Exhibits C-23, C-24, C-25 and C-26 in the proceeding before said Commission, and heard the testimony given by said Colbert, both direct and upon cross-examination, in connection therewith. In the said reports and testimony, said Colbert presented what he alleged to be the amount of depreciation reserve balances derived from the complainant's books related to each class of complainant's property and to its exchange and toll property and to the property at each of its several exchanges. These amounts were fixed by said Colbert by an alleged allocation of the reserve, based on giving to data obtained from the complainant a use and significance inconsistent with the complainant's purpose or use thereof and in a manner which required many arbitrary and highly controversial assumptions and decisions on the part of said Colbert. The portions of Complainant's depreciation reserve, as allocated by said Colbert, reflect errors of fact and [fol. 338] computation, aside from theory, varying in importance, in excess of the number of 100. The subdivision of said reserve by said Colbert is based upon the application of bookkeeping and accounting theories, which would not be concurred in by many competent accountants and in which I do not concur. The fact is that complainant's depreciation reserve is not only contained in one account for its

entire plant and equipment, but that the same has been built up by the use of composite depreciation rates subsequent to 1912, and prior thereto on rates not based upon property and that the said composite rate is a rate applied to complainant's plant and property as a whole. The balance in the said reserve is affected and arrived at not only by the additions just mentioned, but by the size and frequency of various charges and adjustments; and the said reserve balance is designed, according to rules prescribed by the Interstate Commerce Commission and approved by the defendant Commission, to provide a reserve not only for the physical wear and tear on complainant's property which has already occurred, but also for obsolescence, inadequacy and public requirements and for extraordinary repairs and all ordinary casualties which may occur in the future (excepting only the portion of future fire casualties which are provided against by complainant's partial insurance coverage in commercial fire insurance companies). These latter elements in said reserve are indivisible on any sound theory from the element in the reserve designed to cover physical wear and tear which has already occurred. I believe and assume herein that all references in the defendants' affidavits (and particularly those specifically mentioned hereinbefore) to a portion of complainant's depreciation reserve are derived from the apportionment made by said Colbert and presented by him in his said exhibits and testimony before the defendant Commission.

I have considered the allegations contained in the answer at paragraphs 12 and 13 of the answer by which the de- [fol. 339] fendants deny knowledge of whether complainant's rates for toll service are reasonable and just rates or whether such rates are less than just and reasonable rates. For many years, including the year 1931, the complainant has furnished the defendant Commission shortly after the end of each year with an annual report on forms prescribed by the said Commission, which shows for each exchange and for the toll system separately the revenues, expenses and property of the complainant as well as other data. For many years, including the year 1931, shortly after the end of each year, the complainant has furnished the defendant Commission, as required by it, a copy of complainant's annual report to the Interstate Commerce Commission, giving data, for the company as a whole, similar to

that contained in the annual report described in the preceding sentence. The books and files of the complainant which have been under examination by a large number of the members of the staff (both accounting and engineering) of the defendant Commission, have included all of complainant's toll and exchange accounts and data and are the source of all of the computations and figures relative to toll property, revenues, expenses and rate of return contained in the bill of complaint and in my said two affidavits.

I have noted the statement contained in the affidavit of said Hill, at pages 6 and 7 thereof, in which he refers to the figures presented in paragraph 9 of the bill of complaint and states that an examination thereof shows that the complainant has obtained little accuracy in its allocation of business between intrastate and interstate business by reason of the fact that, upon application by the complainant of the reduction in rates imposed by the Commission, the return on intrastate toll service has been increased for the year 1931 by $47,000 and for the first six months of the year 1932 by $16,000; whereas the said reduction in rates does not apply to said service. This apparent increase in the [fol. 340] return on intrastate toll service which results from applying the rate reduction ordered by the defendant Commission is due entirely to complainant's consistent practice of allocating income taxes between exchange and toll operations on the basis of gross taxable revenues. The application of any rate reduction to complainant's business results in some reduction of its computed income tax expense and this reduction in expense has been reflected in complainant's computation of the effect of the rate reduction ordered by the said Commission. Under complainant's method of allocating income taxes between toll and exchange operations, the reduction of this expense results in an allocation of a smaller monetary amount of expense to toll operations (although the same is a larger percentage of the total income tax expense) and consequently in a small increase in the computed toll income. This computation is presented in detail in my said affidavit of September 6, 1932.

In the said affidavits of Bickley (page 15 thereof) and Hill (page 15 thereof) statements are made of certain amounts of the depreciation reserve as applicable to or associated with complainant's local property or an alleged

local portion of exchange fixed capital, evidently referring to the same property. Said figure of Hill is approximately 88% of the figure used by Bickley. Neither of said figures appears on the books of the complainant as depreciation reserve or otherwise and both of them apparently are based on the purported allocation of depreciation reserve to classes of property made by Colbert. As hereinbefore stated, complainant's depreciation reserve is kept as a single fund for all its classes of property. The complainant's property allocated by said affidavits to local use and referred to as local property is 66.2% of the whole, whereas the said figures of Bickley and Hill, based on the purported adjustment by Colbert, would allocate to said local property 80.6% of the depreciation reserve.

[fol. 341] I have noted in the affidavit of said Hill at page 3 thereof his statement that, in reference to the Madison exchange, he "has made a complete segregation of the property, revenues and expenses of that exchange between the local and toll services." I have read all of the accounting exhibits introduced before the Commission in the proceeding in this matter and have read all of the exhibits and heard all of the testimony relating to allocations between local and toll services of the complainant in the Madison exchange and elsewhere. I have read the answer herein and the order of the defendant Commission whose injunction is sought in this suit. In no place in any of said documents or testimony or in the said affidavits of the defendants is there any allocation of revenues between the local and toll services of the complainant, although in the said order, answer and affidavits and in the exhibits and testimony of the staff of the defendant Commission there are frequent attempts at segregation of property and expenses between the local and toll services. The alleged allocation of revenue on page 3 of said affidavit of Hill designates as local revenue the entire exchange revenue of the complainant and therefore is in fact not an allocation.

In order to present the effect of an allocation of revenue between local and toll service, parallel with the allocation of property and expenses as made by said defendants and the resulting return from local service, I have computed the effect of such allocation and the rate of return on local service. I am of the opinion that any allocation of ex-

change property, revenues and expenses between local and toll services is undesirable in view of the fact that I am informed and believe that exchange rates are established to cover local service and toll terminal service together.

As a result of the foregoing computation, I have determined the following as complainant's investment, net oper- [fol. 342] ating income and rates of return on local service, using for this computation allocation methods prescribed by said Commission in its order of June 30, 1932, and apparently accepted by said Bickley in his said affidavit.

For the Year 1931

		Return	
		At present rates of complainant	At rates ordered by commission
All Local Service:			
Average Investment	$54,251,434		
Net Operating Income		$2,265,740	$1,025,006
Rate of Return (Annual basis)		4.176%	1.889%
Intrastate Local Service:			
Average Investment	$54,051,971		
Net Operating Income		$2,250,261	$1,011,145
Rate of Return (Annual basis)		4.163%	1.871%

For the first six months of 1932

		Return	
		At present rates of complainant	At rates provided by order
All Local Service:			
Average Investment	$56,290,097		
Net Operating Income		$1,125,559	$513,705
Rate of Return (Annual basis)		3.999%	1.825%
Intrastate Local Service:			
Average Investment	$56,033,858		
Net Operating Income		$1,117,948	$506,708
Rate of Return (Annual basis)		3.990%	1.809%

In determining the foregoing figures, I have used the following methods:

(a) In determining complainant's average investment for all local service, I have deducted from complainant's average investment in exchange plants and equipment the amount assigned to toll property from exchange property in 1931 as determined by said Commission at page 87 of its order of June 30, 1932 in its determination of investment in property associated with local service. To this amount I have added a proportion of complainant's materials and supplies, working capital and going value for 1931 as

[fol. 343] determined and set forth in my said affidavit of September 6, 1932.

(b) In determining complainant's average investment in property allocable to intrastate local service for the year 1931, I have deducted from complainant's average investment in exchange plant and equipment the amount allocable to toll as determined by said Commission at page 87 of its said order of June 30, 1932, and also complainant's average investment in its exchange plants at Hurley, Beloit and Hudson, Wisconsin, properly associated with its interstate local exchange service and also complainant's local investment in exchange property leased for interstate business. I have added to the resulting figure an amount for complainant's investment in materials and supplies, working capital and going value proportionate to the amount added to complainant's total investment in property associated with local service.

(c) A detailed presentation of the methods and sources used, described in paragraphs (a) and (b) above, is presented in Exhibit E. A. F. No. 1-R, hereto attached and made a part hereof.

(d) In determining complainant's average investment in property allocable to all local service and intrastate local service for the first six months of 1932, I have used the same methods described in paragraphs (a) and (b) above, except that the amount of exchange plant and equipment allocated by me to toll was taken as that percentage of the total investment in exchange plant and equipment in 1932 which the amount allocated in 1931 on the basis of the order of the said Commission bears to the total investment in [fol. 344] exchange plants and equipment in that year. A detailed presentation of these data *are* contained in Exhibit E. A. F. No. 2-R hereto attached and made a part hereof.

(e) In determining the amount of exchange expenses allocable to local service and toll service, respectively, for the year 1931, I have determined the percentage relationship of the amount transferred to toll by said Commission at page 91 of its said order to the Commission's own determination of adjusted exchange expenses in 1931 as appears at page 71 of said order, taking each class of expenses separately. Applying these percentages to the

actual expense of the complainant in 1931, I have thus determined the amount allocable to toll expense.

(f) In determining the amount of exchange expenses allocable to intrastate local expenses, I have followed the same method described in paragraph (e) above and have deducted from the exchange expenses for all local service all exchange local expenses at Hurley, Wisconsin (which is entirely interstate) and the portion of the exchange local expenses at Beloit and Hudson, Wisconsin, associated with interstate exchange service and also the amount of local expenses associated with exchange property leased for interstate business.

(g) A detailed presentation of the allocation of expenses as described in paragraphs (e) and (f) above is contained in Exhibit E. A. F. No. 3-R, hereto attached and made a part hereof.

(h) In determining the amount of exchange expenses allocable to all local service and to intrastate local service for the first six months of 1932, I have followed the same methods described in paragraphs (e) and (f) above, apply-[fol. 345] ing the percentages obtained in the 1931 computations from the said Commission's order to the actual exchange expenses of the complainant in 1932. A detailed presentation of this computation is contained in Exhibit E. A. F. No. 4-R, hereto attached and made a part hereof.

(i) In determining the amount of revenue for 1931 and for the first six months of 1932, allocable to all local service, I have determined the relationship in each of said periods of the total toll operating revenue to the total toll operating expenses and applied the percentage thus derived to the amount of exchange expenses assigned to toll as described in paragraph (e) above. I have taken this amount as the amount of exchange revenue allocable to toll terminal service and have deducted it from total exchange operating revenue in order to determine the total local service revenue.

(j) In determining the amount of revenue assignable to intrastate local service for the year 1931 and for the first six months of 1932, I have deducted from the revenue assignable to all local service, as determined in paragraph (i) above, the local interstate exchange revenues at Hur-

ley, Beloit and Hudson and the local revenue from exchange equipment leased for interstate purposes.

(k) A detailed presentation of the foregoing computations relative to revenues for 1931 and 1932, respectively, are contained in Exhibits E. A. F. No. 5-R and E. A. F. No. 6-R, hereto attached and made a part hereof.

(l) I have determined the net operating income for each of said periods by deducting the expenses allocable to local service from the corresponding amount of revenue alloc-[fol. 346] able to such service, both as to all local service and as to intrastate local service under the present rates and similarly under the rates provided by the order of said Commission. A detailed presentation of these computations is contained in Exhibits E. A. F. No. 7-R and E. A. F. No. 8-R.

The foregoing presentation of the rate of return on property allocable to local service has been based upon the investment in said property. I have made similar computations of the rates of return upon the fair value of complainant's property used and useful in furnishing all local service and intrastate local service, respectively, the said fair value being allocated from the fair values which were determined and presented in my said affidavit of September 6, 1932, and have determined therefrom the following property, net operating income and rates of return:

		Return	
		At present rates of complainant	At rates ordered by commission
For the year 1931			
All Local Service:			
Average fair value	$50,755,065		
Net Operating Income		$2,265,740	$1,025,006
Rate of Return (Annual basis)		4.464%	2.020%
Intrastate Local Service:			
Average fair value	$50,503,299		
Net operating Income		$2,250,261	$1,011,145
Rate of Return (Annual basis)		4.456%	2.002%
For the first six months of 1932			
All Local Service:			
Average fair value	$52,491,687		
Net Operating Income		$1,125,559	$513,705
Rate of Return (Annual basis)		4.289%	1.957%
Intrastate Local Service:			
Average fair value	$52,252,773		
Net Operating Income		$1,117,948	$506,708
Rate of Return (Annual basis)		4.279%	1.939%

[fol. 347] In the computations hereinbefore described, revenues have been allocated from exchange revenues to toll revenues covering toll terminal service on the basis of the relationship to total toll revenues of total toll expenses because this resulted in the largest amount of return for local service. Other methods of allocating revenue which I believe are more logical and which allocate more revenue to toll would result in allocating less revenue to local service and in a smaller rate of return on local service. Comparison of these allocations of toll terminal revenue is as follows:

	Year 1931	First 6 months of 1932
Revenue allocable to toll on basis of ratio of toll revenues and toll expenses (basis actually used in determining rate of return above presented)....	$547,303	$248,785
Revenue allocable to toll on basis of ratio of exchange revenues to exchange expenses.....	585,646	288,654
Revenues allocable to toll on basis of rate of return on exchange plant, i. e., same rate on property assigned to toll terminal service as is earned on entire exchange plants and equipment.....	704,610	345,264

I have noted the statement of said Wray in his said affidavit that it is his opinion that $6.35 per year for each station is an adequate amount to properly maintain the property of the exchange system of the Wisconsin Telephone Company under present conditions. In the first seven months of 1932 (being the latest period for which information is available) the actual expense of maintaining complainant's exchange plants and equipment was $7.80 per average station on an annual basis.

With reference to the allegation of the defendants on page 17 of their answer "on information and belief, that [fol. 348] the property accounts of the Company as carried on its books do not correctly represent the investment in property used and useful in rendering telephone service," I state that, based upon my knowledge of the said books and property accounts and of the methods now used and heretofore used in recording investment in property and additions and displacements thereof, that the said property accounts on the said books do correctly represent the investment in property used and useful in rendering telephone service.

I have noted the statements made by said Bickley in his affidavit at pages 5 and 6 thereof with reference to

employees' pension accruals and benefits and his opinion that a portion of these expenses should be charged to construction. As stated in my previous affidavits, the practice of the company in charging these items to expense is in accordance with the treatment prescribed by the Interstate Commerce Commission. Moreover this method is the more conservative as the charging of a portion of this expense to construction would result in increasing the rate base, over a period of years, in a considerable amount and also increasing the depreciation expense. The depreciable property accounts of the complainant are ultimately only suspense accounts and, through the depreciation charges, the contents of these accounts ultimately pass to expense. The effect of the method prescribed by the Interstate Commerce Commission is to spread the expense over the period of employment of the employee while the method proposed by said Bickley would spread it over only a slightly longer period and would result in increased rates to subscribers after the employment had terminated. The amount which would be capitalized under the method proposed by said Bickley would be irregular and arbitrary as few employees engaged in construction are permanently assigned thereto and most of them engage regularly in maintenance and operation as well as construction. The amount as- [fol. 349] signed to construction would be dependent upon the status and previous length of employment of the particular employees who happened to be assigned to construction. The purpose of complainant's disbursements and accruals for employees' pension and benefits is primarily to create a permanency of tenor and a higher morale among employees and this end is more desirable and necessary for operating and maintenance purposes then for construction purposes. I am informed and believe that the supervising accounting staff of the Interstate Commerce Commission has given careful consideration to this question and has maintained the prescribed method of treatment which is followed by the complainant only after consideration of the factors hereinbefore discussed.

I have also noted the statements made by said Bickley in his affidavit on pages 6 and 7 therein in which he asserts his opinion that license payments made to American

Telephone & Telegraph Company should be charged to construction. I have noted particularly his statement that the method proposed by him is "in accord with the principles of prescribed accounting regulations." I do not know what regulations he refers to or by whom prescribed. The method followed by the complainant is that prescribed by the Interstate Commerce Commission, as set forth in my said previous affidavits. Many of the reasons for this method are the same as the reasons stated by me above relative to the accounting treatment of employees' pension and benefits, particularly the reasons relating to conservatism, including the increase of rate base and depreciation. An additional reason for not charging this item of expense to construction is the fact that it is in no way based upon the volume of construction and is determined by the amount of complainant's gross revenues. Consequently the amount charged to different construction projects would be dependent upon factors in no way relating to the projects.

[fol. 350] In none of the determinations made by the defendant Commission or its staff, as presented in the proceedings before the said Commission or in the order, whose injunction is here sought, in the answer or in the defendants' affidavits has complainant's investment in property or the fair value thereof been made to include any allowance for either employees' pension or benefits or for license payments to American Telephone & Telegraph Company and, if the accounting treatment for these items proposed by said Bickley were adopted, then the amounts of the said investment and fair value should be increased on account of the alleged construction portion of these expenses in the past.

I have noted in the affidavit of said Wray his statement that $38,558, which was charged to maintenance in 1928 on account of drop wire losses, should not have been so charged and that, therefore, the maintenance of 1928 (which was used as the standard in determining the maintenance now claimed to be allowable) was excessive. The fact is that at the end of 1928, it was determined by the complainant that charges had been made to the maintenance account, on account of drop wire losses, which should not have been so charged and the said account was credited

with $50,558 because of this matter and this amount was charged to the depreciation reserve. This transfer more than covers and corrects the amount of the said charge which is criticized by said Wray.

In the affidavit of said Bickley, certain computations are set forth purporting to give the complainant's rate of return derived from the allocation by him of property, revenue and expenses to local service, and also the rate of return on the so-called portion of complainant's capital stock said to be associated with local service. In each of such computations all exchange revenue is taken and used as derived from local service, disregarding the fact that a portion thereof is earned for toll terminal service. Also, [fol. 351] in each of such computations, the expenses used for allocation to local service are not the actual expenses of the complainant for the period, but are a smaller portion thereof after reduction on account of various assumptions made by said Bickley as to complainant's expenses.

(Signed) Edward A. Fritz.

Subscribed and sworn to before me this 16th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wis. (Seal.)

[fol. 352] EXHIBIT E. A. F. #1R, PAGE 1

Wisconsin Telephone Company

Computation of Investment Allocable to Total Local Service and Intrastate Local Service on Basis of Assigning to Toll the Entire Portion of Exchange Plant Allocated by the Public Service Commission to Toll, Year 1931

Investment:	
1. Total average plants and equipment (Exchange)	$53,515,430
2. Exchange toll terminal plant assigned to toll (A)	5,016,296
3. Total (Local)	$48,499,134

Deduct:	
4. Interstate local plant—Hurley	42,393
5. Interstate local plant—Beloit and Hudson (B)	34,091
6. Local plant and equipment leased for interstate business (C)	101,833
7. Total interstate local plants and equipment	$178,317
8. Intrastate local plants and equipment	$48,320,817
(A) Average exchange plants and equipment 1931	$53,515,430
Assigned to toll terminal use by Commission (Page 87 of order of June 30, 1932)	5,016,296

(B)	Average local plant and equipment	Per cent of stations outside of Wisconsin	Computed average interstate local plant and equipment
Beloit	$606,832	5.292%	$32,114
Hudson	68,322	2.894%	1,977
			$34,091

(C) Average local plants and equipment leased for interstate business determined from a special study.

[fol. 352a]

Investment:	
1. Total average local plants and equipment after transfer of exchange toll terminal plant from exchange to toll (A)	$48,499,134
2. Intrastate average local plants and equipment (A)	48,320,817
3. Total average local materials and supplies per books (B)	226,803
4. Total average local working capital (C)	484,991
5. Total average local going value (D)	5,040,506
6. Total	5,752,300
7. Intrastate local average materials and supplies (E)	225,968
8. Intrastate local average working capital (E).	483,206
9. Intrastate local average going value (E)	5,021,980
10. Total	5,731,154

11. Total average local plants and equipment including materials and supplies, working capital and going value (line 1 plus line 6).	$54,251,434
12. Intrastate average local plants and equipment including materials and supplies, working capital and going value (line 2 plus line 10)	$54,051,971

(A) From page 1.

(B) Book amount apportioned on ratio of plant and equipment allocated to local use to total plant and equipment.

(C) 1 per cent of average plant and equipment.

(D) 10 per cent of reproduction value of plant and equipment as of December 31, 1931, apportioned on basis of ratio of book value of property allocated to local use to total plants and equipment.

(E) Same percentage of total as plant and equipment allocated to intrastate local use is of total plants and equipment.

[fol. 353] EXHIBIT E. A. F. #2R

Wisconsin Telephone Company

Computation of Investment Allocable to Total Local Service and Intrastate Local Service on Basis of Assigning to Toll the Entire Portion of Exchange Plant Allocated by the Public Service Commission to Toll, Six Months, 1932

Investment:	
1. Total average plants and equipment (Exchange)	$55,701,541
2. Exchange toll terminal plant assigned to toll (A)	5,197,683
3. Total (Local)	$50,503,858
Deduct:	
4. Interstate local plant—Hurley	42,530
5. Interstate local plant—Beloit and Hudson (B)	35,658
6. Local plant and equipment leased for interstate business (C)	151,707
7. Total interstate local plants and equipment	229,895

8. Intrastate local plants and equipment	$50,273,963
(A) Average exchange plants and equipment 1932	$55,701,541
Assigned to toll terminal use on basis of Commission 1931 apportionment on page 87 of Order of June 30, 1932	5,197,683

(B)	Average local plant and equipment	Per cent of stations outside of Wisconsin	Computed average interstate local plant and equipment
Beloit	$616,729	5.449	$33,606
Hudson	69,673	2.945	2,052
			$35,658

(C) Average local plant and equipment leased for interstate business determined from a special study.

[fol. 353a] Investment:

1.	Total average local plants and equipment after transfer of exchange toll terminal plant from exchange to toll (A)	$50,503,858
2.	Intrastate average local plants and equipment (A)	50,273,963
3.	Total average local materials and supplies (per books) (B)	248,268
4.	Total average local working capital (C)	505,039
5.	Total average local going value (D)	5,032,932
6.	Total	5,786,239
7.	Intrastate local average materials and supplies (E)	247,138
8.	Intrastate local average working capital (E)	502,740
9.	Intrastate local average going value (E)	5,010,017
10.	Total	5,759,895
11.	Total average local plants and equipment including materials and supplies, working capital and going value (line 1 plus line 6)	$56,290,097

12. Intrastate average local plants and equipment including materials and supplies, working capital and going value (line 2 plus line 10)	$56,033,858

(A) From page 1.

(B) Book amount apportioned on ratio of plant and equipment allocated to local use to total plant and equipment.

(C) One per cent of average plant and equipment.

(D) 10% of reproduction value of plant and equipment as of June 30, 1932, apportioned on basis of ratio of book value of property allocated to local use to total plants and equipment.

(E) Same percentage of total as plant and equipment allocated to intrastate local use is of total plants and equipment.

[fol. 354] EXHIBIT E. A. F. #3R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Expenses for Entire Local Service and Intrastate Local Service on the Basis of Assigning to Toll the Entire Portion of Exchange Expenses Allocated by the Public Service Commission to Toll, Year 1931

1.	Total operating expenses (exchange)	$10,899,683
2.	Uncollectible Revenue Adjustment	26,320
3.	Amortization of Intangible Capital	38,923
4.	Total adjusted operating expense	10,964,926
5.	Exchange toll terminal expenses assigned to toll (A)	479,880
6.	Total local expenses	10,485,046
	Deduct:	
7.	Interstate exchange local expenses—Hurley	13,186
8.	Interstate exchange local expenses—Beloit and Hudson (B)	7,624

9.	Local Expenses in connection with exchange plant leased for interstate business (C)	11,298
10.	Total interstate local expenses	32,108
11.	Total intrastate local expenses	$10,452,938

(A) See page 2.
(B) See page 2.
(C) See page 2.

[fol. 354a]

(A) Exchange Expenses Assignable to Toll on Commission Basis

1931, as per Public Service Commission order of June 30, 1932	Adjusted exchange expense, 1931, page 71 of said order	Amount transferred to toll, page 91 of said order	Per cent
Maintenance	$2,326,232	$130,270	5.6
Depreciation	1,888,520	162,413	8.6
Traffic	2,697,883	102,451	3.797
General and Miscellaneous	632,788	25,311	4.0

Applying above percentages to Actual expense for 1931:

	Actual 1931 expenses	% assigned to toll	Computed amount assigned to toll
Maintenance	$2,926,983	5.6%	$163,911
Depreciation	2,160,885	8.6%	185,836
Traffic	2,697,883	3.797%	102,439
General and Miscellaneous	692,352	4.0%	27,694
			479,880

(B)	Local operating expenses	Local expenses per station	No. of stations outside Wisconsin	Computed interstate local expenses
Beloit	$129,984	$22.132	318	$7,038
Hudson	19,770	23.44	25	586
				$7,624

(C) Operating expenses in connection with exchange plant leased for interstate business determined from a special study.

[fol. 355] EXHIBIT E. A. F. #4R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Expenses for Entire Local Service and Intrastate Local Service on the Basis of Assigning to Toll the Same Proportion of Exchange Expenses as Allocated by the Public Service Commission to Toll for 1931, Six Months, 1932

	Expenses:	
1.	Total operating expenses (exchange)	$5,310,009
2.	Uncollectible Revenue Adjustment	13,349
3.	Amortization of Intangible Capital	9,588
4.	Total adjusted operating expenses	5,332,946
5.	Exchange toll terminal expenses assigned to toll (A)	236,893
6.	Total local expenses	5,096,053
	Deduct:	
7.	Interstate exchange local expenses, Hurley	5,839
8.	Interstate exchange local expenses, Beloit and Hudson (B)	3,719
9.	Local expenses in connection with exchange plant leased for interstate business (C)	7,835
10.	Total interstate local expenses	17,393
11.	Total intrastate local expenses	$5,078,660

(A) See page 2.
(B) See page 2.
(C) See page 2.

[fol. 355a]

(A) Exchange toll terminal expenses assigned to toll, $236.893.

Exchange Expenses Assignable to Toll on Commission Basis

1931 as per Public Service Commission Order of June 30, 1932	Adjusted exchange expenses, 1931 page 71 of said order	Amount transferred to toll, page 91 of said order	Per cent
Maintenance	$2,326,232	$130,270	5.6
Depreciation	1,888,520	162,413	8.6
Traffic	2,697,883	102,451	3.797
General and Miscellaneous	632,788	25,311	4.0

6 Months 1932, applying Public Service Commission's 1931 percentages	Exchange expenses, 6 months 1932	Per cent assigned to toll	Computed amount assigned to toll
Maintenance	$1,419,860	5.6	$79,512
Depreciation	1,131,776	8.6	97,333
Traffic	1,212,267	3.797	46,030
General and Miscellaneous	350,455	4.0	14,018
			$236,893

(B)

	Local operating expenses	Local expenses per station	Number of stations outside of Wisconsin	Computed interstate local expenses
Beloit	$63,098	$10.881	316	$3,439
Hudson	9,503	11.194	25	280
				$3,719

(C) Operating expenses in connection with exchange and toll plant leased for interstate business determined from a special study.

[fol. 356] EXHIBIT E. A. F. #5R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Revenues from Entire Local Service and Intrastate Local Service on Basis of Assigning to Toll Toll Terminal Revenue Based on Relation of Toll Revenue to Toll Expense, 1931

	Revenues:	
1.	Total operating revenue	$13,298,089
2.	Revenue from exchange toll terminal operations assigned to toll (A)	547,303
3.	Total local revenue	12,750,786
	Deduct:	
4.	Interstate exchange local revenue—Hurley	15,612
5.	Interstate exchange local revenue—Beloit and Hudson (B)	12,094
6.	Local revenue for exchange plant and equipment leased for interstate business (C)	19,881
7.	Total local interstate revenue	47,587
8.	Total local intrastate revenue	$12,703,199

(A) Computed exchange expenses assigned to toll (See Exhibit E. A. F. #3R, page 2, Note A), $479,880.

Toll operating revenue ($4,533,155) to toll operating expenses ($3,974,838), $114.05%.

Computed exchange toll terminal revenue, $547,303.

(B) Operating revenue, Beloit and Hudson, developed from books through a special study.

(C) Operating revenue from exchange plant leased for interstate business is developed from the books through a special study.

[fol. 357] EXHIBIT E. A. F. #6R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Revenues from Entire Local Service and Intrastate Local Service on Basis of Assigning to Toll Toll Terminal Revenue Based on Relation of Toll Revenue to Toll Expenses, Six Months, 1932

Revenues:	
1. Total operating revenue	$6,470,397
2. Revenue from exchange toll terminal operations assigned to toll (A)	248,785
Total local revenue	6,221,612
Deduct:	
4. Interstate exchange local revenue—Hurley	7,429
5. Interstate exchange local revenue—Beloit and Hudson (B)	5,889
6. Local revenue from exchange plant and equipment leased for interstate business (C)	11,686
7. Total interstate local revenue	25,004
8. Total intrastate local revenue	$6,196,608

(A) Computed exchange expenses assigned to toll (see Exhibit E. A. F. #4R, Page 2, Note A)	$236,893
Total operating revenue ($1,863,326) to toll operating expenses ($1,774,283)	105 02%
Computed exchange toll terminal revenue	$248,785

(B) Operating revenue, Beloit and Hudson, developed from books through a special study.

(C) Operating revenue from exchange plant and equipment leased for interstate business is developed from the books through a special study.

[fol. 358] EXHIBIT E. A. F. #7R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Net Operating Income for Entire Local Service and Intrastate Local Service on Basis of Assigning Exchange Toll Terminal Plant Revenues and Expenses to Toll, Year 1931

Under Existing Rates and under Rates Prescribed by Public Service Commission Order of June 30, 1932

1. Intrastate local operating revenue (Exhibit E. A. F. #5R)	$12,703,199
2. Intrastate local operating expenses (Exhibit E. A. F. #3R)	10,452,938
3. Intrastate net operating local income	2,250,261
4. Rate reduction applicable to intrastate	1,494,513*
5. Reduction in taxes and licensee contract payment, intrastate	255,397
6. Intrastate net local operating income after rate reduction	1,011,145
7. Interstate local operating revenue (Exhibit E. A. F. #5R)	47,587

[*Red in copy.]

8. Interstate local operating expenses (Exhibit E. A. F. #3R)	32,108
9. Interstate net local operating income	15,479
10. Rate reduction applicable to interstate	1,952*
11. Reduction in taxes and licensee contract payment, interstate	334
12. Interstate net local operating income after rate reduction	13,861
13. Total local operating revenue	12,750,786
14. Total local operating expenses	10,485,046
15. Total net local operating income	2,265,740
16. Rate Reduction	1,496,465*
17. Reduction in taxes and licensee contract payment	255,731
18. Total net local operating income after rate reduction	1,025,006

[fol. 359] EXHIBIT E. A. F. #8R

Wisconsin Telephone Company

Computations Setting Forth the Determination of Net Operating Income for Entire Local Service and Intrastate Local Service on Basis of Assigning Exchange Toll Terminal Plant, Revenue, and Expenses to Toll, Six Months, 1932

1. Intrastate local operating revenue (Exhibit E. A. F. #6R)	$6,196,608
2. Intrastate local operating expense (Exhibit E. A. F. #4R)	5,078,660
3. Intrastate local net operating income	1,117,948

[*Red in copy.]

4. Rate reduction applicable to intrastate	731,963*
5. Reduction in taxes and license contract payment, intrastate	120,723
6. Intrastate net local operating income after rate reduction	506,708
7. Interstate local operating revenue (Exhibit E. A. F. #6R)	25,004
8. Interstate local operating expenses (Exhibit E. A. F. #4R)	17,393
9. Interstate net operating local income	7,611
10. Rate reduction applicable to interstate	736*
11. Reduction in taxes and license contract payment, interstate	122
12. Interstate net local operating income after rate reduction	6,997
13. Total local operating revenue	6,221,612
14. Total local operating expense	5,096,053
15. Total net local operating income	1,125,559
16. Rate reduction	732,699*
17. Reduction in taxes and license contract payment	120,845
18. Total net local operating income after rate reduction	513,705

[fol. 360] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF FRANK M. McENIRY

STATE OF WISCONSIN,
Milwaukee County, ss:

Frank M. McEniry, being first duly sworn, on oath deposes and says:

I am the same Frank M. McEniry who made an affidavit herein verified on September 6th, 1932, and am General Commercial Superintendent for the complainant.

[*Red in copy.]

I have read the answer herein and the affidavites of John H. Bickley, Cyrus G. Hill and E. W. Morehouse, all executed August 16, 1932.

I have noted the allegations contained in paragraphs 12 and 15 of the answer that defendants deny knowledge as to whether complainant's toll rates are less than just and reasonable rates or are reasonable and just rates. To the best of my knowledge and belief, defendants have the same knowledge of complainant's toll rates which they have of any other of complainant's rates. In 1926 complainant's toll rates were revised by the said Commission in an order dated December 23, 1926, after hearings which were held [fol. 361] on different days in seven Wisconsin cities and after a full and complete presentation of all facts and data relative to complainant's toll business. Full schedules were duly filed with said Commission twice during the year 1929 by complainant to cover reductions in its toll rates.

I have noted the statements contained in said affidavit of said Hill at pages 4, 5 and 6 thereof relative to the practice in Wisconsin and elsewhere in designing exchange rates to cover terminal service on toll calls or toll-board-to-subscriber-station service with particular reference to his statement that connecting companies look to the toll company for compensation for their services in connecting Bell system toll calls to their subscriber stations. I attach herewith, marked "Exhibit F. Mc No. 1R," and made a part hereof, a copy of the form of traffic agreement which is in use between the complainant and about 80% of the connecting companies with which it does business. I have also attached hereto the form of contract formerly used by the complainant and its connecting companies, which is marked "Exhibit F. Mc No. 2R," and incorporated herein. This form of contract is now in effect between the complainant and about 20% of the connecting companies with which it does business. I call particular attention to paragraph 8 of Section II of Exhibit F. Mc No. 1R, which is as follows:

"8. The commission determined as above is the total amount to be received by each company for facilities furnished and services rendered in originating and terminating communications interchanged under said Traffic Agreement, but does not include compensation for the use of exchange service facilities required to establish connection between an exchange station and the toll terminal plant,

for the use of which facilities each company is compensated by its rates for exchange service."

[fol. 362] The amounts paid connecting companies by the complainant are paid for connecting company toll switchboard, switching and commercial services and are not paid for transmitting toll calls between the toll switchboard and the subscriber station.

With reference to the admission in the answer that the system of designing rates used by the complainant and here at issue has had the expressed approval of the defendant Commission "in some cases" and also that "in some cases" the Commission has itself fixed the complainant's rates under such system, I refer to my said affidavit dated September 6, 1932, in which I have shown that exchange rates at 93 of complainant's 96 exchanges were established by the said Commission. In all of the said 93 exchanges, as well as in all other exchanges and in complainant's toll business, the rates are established by the method of providing compensation for terminal toll service through exchange rates.

I have noted the statements contained in the said affidavit of E. W. Morehouse relative to net loss of company's stations for the first six months of 1932 and his expressed opinion that these station losses indicate that the present rates of the complainant exceed the value of the service to large numbers of subscribers. The maximum number of complainant's subscriber stations was at the end of May, 1931, when there were 368,072 stations. Total losses from that date to June 30, 1932, were 18,966 stations, or 5.15%. An investigation was conducted under my supervision by which there was ascertained from every subscriber who requested discontinuance of a station during the month of June, 1932, the reasons for his decision to make such discontinuance. In June, 1932, of customers interviewed concerning service discontinuance, 7,838 stations were subsequently discontinued, and of this number 22, or 3 10ths of one per cent were attributed by the subscribers to dissatisfaction with complainant's rates, 1.8% were attributed to [fol. 363] premises abandoned, 85% were attributed to other reasons, and 12.9% were discontinued by the complainant, largely for non-payment of bills.

With reference to the statement of said Bickley in his affidavit on pages 11 and 12 thereof relating to the so-called

Madison case and particularly Exhibit 2 in said case, I am familiar with the testimony and exhibits presented in that case. Said Exhibit 2 therein did not purport to present the complainant's depreciation reserve or its earnings according to its books and counsel for complainant stated of record that such was the case. Moreover, the information as to the depreciation charged by the complainant on its books and the net earnings of the Madison exchange according to the complainant's books was set forth in the complainant's reports to the Commission which were incorporated in and made a part of the record in said Madison case by reference.

(Signed) Frank M. McEniry.

Subscribed and sworn to before me this 16th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wisconsin. (Seal.)

[fol. 364] EXHIBIT F. Mc. #1-R

Wisconsin Telephone Company

Traffic Agreement

Traffic Agreement, effective as of the — day of ——, 19—, between the Wisconsin Telephone Company, a corporation under the laws of the State of Wisconsin (herein called Bell Company), and —— ——, a corporation under the laws of the State of Wisconsin (herein called Connecting Company)

Section I

1. Physical connection shall be established and telephone communications interchanged between the system operated by Connecting Company, as shown on the annexed map marked "Exhibit A" and made a part hereof, and the system operated by Bell Company, including sytems of other companies with which Bell Company connects, upon the following terms and conditions:

2. Bell Company will connect its system with the system of Connecting Company at ——.

3. With respect to all matters covered by this agreement, Connecting Company will adopt and comply with Bell Company's directions as to routes over which communications are to be routed, and also with its operating methods

and rules. Connecting Company will require its patrons to observe the rules and regulations of Bell Company and will upon request furnish the latter such information as it may reasonably require.

4. Each company will make the proper switchboard and other connections for direct and prompt communication between its patrons and the patrons of the other. The toll center checking to destination required in connection with communications interchanged hereunder shall be performed by the company designated in "Exhibit B" hereto attached and made part hereof.

5. Connecting Company agrees that, except as to lines and exchanges now owned and operated by it or with which it now connects, it will not directly or through a third party during the continuance of this agreement, without the written consent of Bell Company, extend or build or be interested in or operate or connect with any intrastate lines or exchanges in competition with such lines or exchanges of Bell Company or with such lines or exchanges of connecting companies under contract with said Bell Company.

6. Each company will construct, equip, maintain and operate its system so that good telephone service shall be at all times furnished to the public, and each will by itself or through others, furnish adequate toll and exchange facilities therefor.

7. Each company shall take reasonable precautions in the location, construction and maintenance of its lines for protection against hazard and interference from foreign wire lines.

8. The charges for all communications interchanged hereunder shall be in accordance with such rates as Bell Company may from time to time establish or adopt. No charge shall be made in excess of such rates, except a reasonable charge for a messenger, when necessary, to notify a person for whom a call is received.

9. The amount to be received by each company from the other for facilities furnished and services rendered hereunder by itself and its agencies shall be determined in accordance with the Basis of Settlement, Section II of this contract. Each company shall collect all charges payable by its patrons for communications originating or terminating on its system, and shall account and be responsible to

the other for the latter's share thereof. Each company shall keep proper records of its transactions hereunder, [fol. 364a] and such records shall be at all reasonable times subject to inspection by the other. Accounts hereunder shall be adjusted and paid monthly, and remittance in full shall be made by the debtor to the creditor within thirty (30) days after the close of the period covered by the monthly statement.

Section II

Basis of Settlement

1. From the effective date hereof, the amount to be received by each company from the other for facilities and services rendered in connection with traffic interchanged shall be determined as follows:

2. Definition.—The term "originating message" shall include only sent-paid messages and received-collect messages.

3. Commissions.—

Where the average revenue per originating message is		The commission per message is		
Over	And not over	Schedule "A"	Schedule "B"	Schedule "C"
$.00	$.125	$.065	$.005	$.049
.125	.15	.07	.008	.052
.15	.175	.075	.013	.056
.175	.20	.08	.017	.06
.20	.225	.0825	.021	.062
.225	.25	.085	.025	.064
.25	.275	.0875	.029	.065
.275	.30	.09	.033	.067
.30	.325	.0925	.036	.069
.325	.35	.095	.039	.071
.35	.375	.0975	.041	.073
.375	.40	.10	.043	.075
.40	.425	.1025	.044	.077
.425	.45	.105	.045	.079
.45	.475	.1075	.046	.081
.475	.50	.11	.047	.082
.50	.525	.1125	.048	.084
.525	.55	.115	.049	.086
.55	.60	.117	.05	.088
.60	.65	.118	.052	.088
.65	.70	.119	.054	.089
.70	.75	.12	.056	.090
.75	.80	.121	.058	.091
.80	.85	.122	.059	.0915
.85	.90	.123	.06	.092
.90	.95	.124	.061	.093
.95	1.00	.125	.062	.094

NOTE—For average revenues per message above $1.00, the commission per message increases $.001 in schedules "A", "B", & "C", for each 10c increase in revenue per message.

4. Schedule "A" will apply to all originating messages whether handled to completion by the originating company or passed to some other point, commonly known as a toll center for handling and completion to destination.

The commission shown under Schedule "A" of the foregoing table shall be computed and the amount to which each company is entitled thereunder shall be determined for a given month as follows:

a. Compute the average revenue per originating message by dividing the sum of the charges for such messages, including report charges, by the number of such messages during the month.

b. Ascertain from Schedule "A" the amount of commissions per message corresponding to the average revenue per message.

c. Multiply the total number of such originating messages by the amount of commission per message so ascertained.

5. Schedule "B" will apply as additional commission to all originating messages that are handled and completed by the originating company to destination.

[fol. 364b] The additional commission shown under Schedule "B" of the foregoing table and the amount to which each company is entitled thereunder shall be determined for a given month as follows:

a. Compute the average revenue per originating message to which Schedule "B" shall apply by dividing the sum of the charges for such messages, including report charges, by the number of such messages during the month.

b. Ascertain from Schedule "B" the amount of additional commission per message corresponding to the average revenue per message.

c. Multiply the total number of such originating messages by the amount of additional commission per message so ascertained.

Where messages originate on the system of one company but the completion to destination is performed by the other company, as specified in "Exhibit B", the latter company shall be entitled to receive the additional commission as

shown under Schedule "B" of the foregoing table, determined as above for such messages.

6. Schedules "A" and "B", where applied, provide that Connecting Company will without further compensation furnish and operate the necessary toll switchboard and office facilities.

7. Schedule "C" will apply to all originating messages at Connecting Company points where the toll switchboards are owned, maintained and operated by Bell Company.

a. Compute the average revenue per message on messages to which Schedule "C" shall apply by dividing the sum of the charges for such messages, including report charges, by the number of such messages during the month.

b. Ascertain from Schedule "C" the amount of commission per message corresponding to the average revenue per message.

c. Multiply the total number of originating messages by the amount of commission per message so ascertained.

8. The commission determined as above is the total amount to be received by each company for facilities furnished and services rendered in originating and terminating communications interchanged under said Traffic Agreement, but does not include compensation for the use of exchange service facilities required to establish connection between an exchange station and the toll terminal plant, for the use of which facilities each company is compensated by its rates for exchange service.

9. Prorate.—For all communications interchanged hereunder, each company shall be entitled to receive as its share of the toll charges, including report charges, the proportion of such charges that the length of its toll lines used therefor bears to the total length of the toll lines so used. Measurements shall be by air-line distance between the point or points of connection of the systems of the companies and the respective originating and terminating toll rate centers. Commissions shall be first deducted from the toll charges and the remainder shall be subject to prorate.

a. To facilitate settlement between the companies the amount to which Connecting Companies shall be entitled as prorate shall be determined from a study of the traffic

interchanged during a period agreed upon between the companies, and equated as an amount per originating message of Connecting Company.

b. Subsequent studies to determine whether there should be a change in the amount per originating message shall be made from time to time on request of either company, but not more often than once in six months unless rendered necessary by physical changes in the toll system of either company or by important changes in toll routing.

c. The total amount to which Connecting Company shall be entitled as prorate in any month, shall be determined by mutiplying the amount per message so developed by the number of its originating messages during such month.

10. Settlements shall be made according to the amount per message developed as a result of the initial study, for all traffic interchanged from the effective date hereof until such time as the result of a new study shall be made effective. The amount per message developed by any subsequent study, shall become effective and settlements made in accordance therewith, for all traffic interchanged from and after the expiration of ninety (90) days after the first day of the period for which such study was made: pro-
[fol. 364c] vided, however, that when a study is made necessary by a physical change in the toll system of either company or by an important change in toll routing, the amount per message determined from such study shall become effective and settlement made in accordance therewith, for all traffic interchanged from and after the date of said change.

11. Transoceanic Communications.—The above provisions as to commissions and prorate shall not apply to transatlantic and other similar transoceanic communications originating or terminating on the system of Connecting Company. In lieu of all charges for facilities furnished and services rendered in connection with transatlantic communications, Connecting Company shall be entitled to have included in the computations for ascertaining commissions and prorate, the number of messages and the same amount as if each such transatlantic communication had been a person-to-person message to or from the City of New York.

12. Messenger Charges.—Charges for messenger service shall not be included in the amount upon which commis-

sions and prorates are calculated. Each company shall reimburse the other company for charges expended at the request of the company originating the message and any such amount shall be included in the monthly settlement between the companies.

Section III

1. If either company shall default in the payment of any sum due hereunder, or shall violate any other provisions of this agreement, and if such default or violation shall continue for thirty (30) days after written notice thereof, the other company may terminate this agreement forthwith by written notice.

2. The failure of either company hereto to comply with or to enforce or insist upon compliance by the other company with any of the terms and conditions of this agreement, or with the waiver by either company hereto of the same in any instance or instances, shall not be construed as a general waiver or relinquishment of any such terms or conditions, but the same shall be and remain at all times in full force and effect.

3. Except as to any sums due thereunder, this agreement cancels all previous agreements between the companies or their respective predecessors covering interchange of communications.

4. Unless sooner terminated as herein provided, this agreement shall continue in force until the — day of ——, 19—, and thereafter for terms of one year each, unless thirty (30) days written notice be previously given by one party to the other of an intention to terminate the same at the end of any such period.

5. Each and every stipulation and agreement herein is to be kept and performed by the respective parties hereto, and shall extend to and bind their successors and assigns.

In witness whereof the respective companies have caused this agreement to be executed in their behalf this — day of ——, 19—.

Wisconsin Telephone Company, by —— ——. Witness: —— ——. —— ——, by —— ——, President. By —— ——, Secretary. Witness: —— ——.

[fol. 365] EXHIBIT F. Mc. #2 R

Telephone System Connecting Contract

This agreement, made this — day of ——, 19—, by and between the Wisconsin Telephone Company, a Wisconsin Corporation, party of the first part and —— ——, party of the second part, witnesseth:

Whereas, The first party is the licensee of the American Bell Telephone Company for territory within the State of Wisconsin, and as such licensee, may sublease telephone instruments and apparatus provided by the American Bell Telephone Company, and,

Whereas, The second party operates exchanges and toll lines as shown by the diagram attached hereto, which is made a part hereof, and,

Whereas, It is desired to furnish long distance service between the systems of the respective parties, now therefore it is mutually agreed as follows:

1. The first party will supply, at the request of the second party (at its office in Milwaukee, Wis.), sets of telephones of the standard forms furnished by the American Bell Telephone Company for similar purposes, for use only in connection with the said telephone system operated by said second party. It is understood that said second party shall pay all charges for the transportation or cartage of said sets of telephones. A "set of telephones" shall be construed in this contract to mean a set consisting of a solid back transmitter, bi-polar receiver and induction coil.

2. The second party may, at its option, equip its toll stations and subscribers' stations with sets of telephones obtained from the first party and shall continuously maintain in its said system as many toll stations as the needs of the public may require.

3. The second party shall have the right to connect its system with the lines of the first party at ——, as indicated upon the diagram hereto attached and in such a manner as the first party may direct, and shall so construct, equip, maintain and operate the lines and stations of its system as not to interfere with or impair the quality of service through the lines of the first party connected as aforesaid.

The party operating the station at which connection is made as aforesaid shall, without charge, other than herein provided, make the proper switchboard or other connections for communication between stations on the lines of both parties.

4. For communications from the second party's system to points on or over the lines of the first party, the second party shall observe, and shall require its customers to observe such regulations as the first party may from time to time make for the use of its lines, and shall itself pay the first party the regular tolls of the first party for the time being for all such communications, whether from toll stations or subscribers' stations.

5. For all communications passing over the toll lines of both parties hereto and originating or terminating on the lines of either party, each party hereto shall be entitled to receive, in addition to, and after first deducting an originating commission of fifteen per cent of the toll thereof and in lieu of all charges for terminal facilities and services, a share of the amount of through toll remaining for each such communication, in the proportion, in each case, which the length of its toll lines bears to the whole length of the toll line of both parties hereto, measured by air-line distance between the point at which the toll lines of both parties hereto connect and the respective points of origin and termination.

For all communications passing over the toll lines of both parties hereto and originating or terminating on the lines of connecting companies, other than the parties hereto, the parties hereto shall share in the amount of through toll remaining, after deducting an allowance for the use of the lines of such connecting companies, and an originating commission of fifteen per cent of the toll thereof and in lieu of all charges for terminal facilities and services, in the proportion, in each case, which the length of the toll lines of each party hereto bears to the whole length of the toll lines of both parties hereto measured by air-line distance between the point at which their toll lines connect and the terminals of their respective toll lines involved.

[fol. 365a] In determining the prorate on tolls, for all communications passing over the toll lines of both parties hereto, that route shall govern which will provide the shortest sum of air-line distance between the points of origin and termination, determined as hereinbefore provided.

6. Each party shall render to the other, statements of all said business and make full remittances; proper accounts and vouchers to be kept and open to the inspection of both parties; and statements and remittances to be made not later than the fifth day of each month for the month next preceding.

7. For the service to be rendered by the second party herein provided, except on prorated revenue of jointly used toll circuits as referred to in paragraph 5 herein, said second party shall retain as commission and in lieu of all charges for terminal facilities and services except as herein otherwise specified, a percentage of — per cent (not exceeding ten (10) cents per message) upon all tolls collected by said second party on outgoing business originating at and sent from the system of said second party over the lines of the first party.

8. Except as otherwise herein provided, both parties agree that no charge will be made on calls incoming to their subscribers, other than the usual toll line charges when toll lines are used, or for messenger service when the subscriber called for cannot be reached over an exchange line.

9. The second party shall pay — in advance at the office of the first party in Milwaukee, Wisconsin, and as rental therefor, at the rate of — per annum for each set of telephones when furnished by said first party, as herein provided, and shall pay all taxes and assessments of every kind and however assessed on said instruments, or on account of business done over its lines, and the first party agrees to keep all of said sets of telephones furnished by it in repair when the same shall be delivered to it at its office in Milwaukee, Wisconsin, transportation charges prepaid.

10. The second party agrees that, except as to lines and exchanges now owned and operated by it or with which it now connects, it will not directly or through a third party during the continuance of this agreement, without the written consent of the first party, extend or build or be interested in or operate or connect with any intrastate lines or exchanges in competition with such lines or exchanges of said first party or with such lines or exchanges of connecting companies under contract with said first party.

11. In case of any failure of payment of any sums due hereunder or any connection of lines or telephones with the system of the second party or with the lines of the first party contrary to the provisions hereof by the second party, continued without remedy or repair for thirty days after written notice or demand by the first party, or in case the second party shall become bankrupt or insolvent, or shall fail to keep up its plant and lines so that its use of the first party's lines shall not interfere with the proper operation thereof and proper service thereby, or shall fail to observe any conditions or agreement therein, the first party may, at its option, in addition to the other rights and remedies to which it may be entitled at law or in equity and which are not waived hereby, terminate this contract by written notice to the second party (or to those in charge of its system).

12. In case of the failure of the first party to keep and perform any of the conditions or agreements by it herein undertaken to be performed, the second party may terminate this contract after thirty (30) days' written notice to the first party.

13. Upon the expiration or earlier termination of this contract, as herein provided, the second party shall deliver, charges prepaid, in good order, to the first party, at its office in Milwaukee, Wisconsin, all sets of telephones which the second party may have leased under the option hereinbefore specified.

[fol. 365b] 14. * * *

15. This contract shall remain in force and effect until the — day of ——, 19—, and thereafter, for terms of one year each, unless thirty (30) days' written notice shall be previously given by one party to the other of an intention to terminate the same at the end of any such period.

16. And each and every one of the stipulations and agreements herein to be kept and performed by the respective parties hereto shall extend to and bind their successors and assigns.

Wisconsin Telephone Company, by —— ——, President. Witness: —— ——. —— ——, by —— ——, President. By —— ——, Secretary. Witness: —— ——.

[fol. 365c] [Endorsed:] No. —. Connecting Company Agreement. Wisconsin Telephone Company with —— ——. Diagram.

[fol. 366] In United States District Court

[Title omitted]

Affidavit of Joseph F. Krizek

State of Wisconsin,
Milwaukee County, ss:

Joseph F. Krizek, being first duly sworn, on oath deposes and says:

I am the same J. F. Krizek who made an affidavit herein verified on September 6, 1932, and am General Attorney of the complainant.

I have read the answer herein and also all of the affidavits of the defendants served on the complainant on September 7, 1932.

I have read the allegation contained in paragraph 14 of the answer that "said Company has its remedy to establish toll rates which will cover such return and to apply to the Commission for such toll rates in any cases where said Commission has jurisdiction." The proceedings before the said Commission, in which the order whose injunction

is here sought was entered, involved an investigation by the said Commission of all of the rates, rules, services, practices and activities of the complainant ("Order for a State-[fol. 367] wide Investigation," which is Exhibit A to the bill of complaint herein), and until the said order of June 30, 1932 was entered the complainant had no intimation that the said Commission was proceeding to investigate and act upon complainant's exchange rates separately. The said proceeding is continuing and as I verily believe will not be concluded for more than a year from date of entry of said order, and I am informed and believe that complainant's toll rates as well as its exchange rates are still under investigation by said Commission. In complainant's application for rehearing upon the said Commission's order (which is Exhibit C to the bill of complaint herein) it fully presented to the said Commission complainant's allegations that the said Commission in said order had failed to provide payment to complainant for return on exchange property used and useful in furnishing toll terminal service, and the said application for rehearing was denied.

While the said proceeding before the Commission was in progress said Commission had occasion to hand down a decision in another proceeding entitled "In the Matter of the Investigation on motion of the Commission of the rates and practices of Wisconsin Telephone Company for hotel service, 2-U-8." In the said decision, which was dated December 29, 1931, and in the decision on application for rehearing in the same proceeding under date of April 15, 1932, the said Commission stated in effect that no increased compensation in said matter would be allowed the complainant pending completion of the so-called State-wide Case, 2-U-35 (which is the proceeding in which the order which is here sought to be enjoined was entered). In connection with discussions of the said hotel case between E. W. Morehouse, who is director of the Rates and Research Division of the said Commission, and me, in conversations which occurred in the early part of 1932, I was told [fol. 368] it was not likely that any rate increases or other increases in our revenues would be considered by the Commission during the pendency of the so-called State-wide Case. At the first hearing in connection with this proceeding on April 1st, 1932, defendant David E. Lilienthal, a member of said Commission, stated: "This is a proceeding

on motion of the Commission to investigate the rates, rules, practices and activities of the Wisconsin Telephone Company in state-wide operations."

I have noted the affidavits of Theodore Kronshage, Jr., Andrew R. McDonald, and David E. Lilienthal, executed August 16, 1932, and the statements of each of them that neither the complainant nor its counsel were denied the privilege of presenting witnesses or making arguments. The proceeding here was initiated by an order of the Commission, dated July 29, 1931, for an investigation, on its own motion, of all of the rates, rules, services, practices and activities of the complainant, but no proceedings were had and no evidence was presented prior to April 1st, 1932. The Commission formally assumed the role of protagonist and undertook beginning on April 1st, 1932, through its staff, to present all evidence concerning the matters which it was investigating, and at the said hearing on April 1st, 1932, the said defendant Lilienthal made the following statement (as reported in the transcript of proceedings):

"* * * The position the Commission takes with respect to cities in this state-wide case, is briefly this:

The Commission welcomes the aid of the cities in developing the facts that are pertinent to this inquiry. The Commission wants all the facts that can properly be adduced, or (sic) any party or municipality or any proper representative. If particular cities or classes of cities desire to present testimony concerning their local situation or general situation, the Commission will be glad to receive [fol. 369] it. On the other hand, so far as the general investigation is concerned, the Commission believes it its duty, under the law, to press this inquiry forward upon its own responsibility regardless of whether cities participate or not."

Thereafter the Commission proceeded to present at successive hearings data gathered by its staff, and repeated statements have been made that the said presentation of evidence by the Commission would not be completed for more than a year thereafter. The Commission had before it a large amount of information gathered by its staff as well as the various regular reports submitted by the complainant, as required by law and regulation, and also special

reports submitted from time to time on the request of the said Commission or its staff. The nature of the evidence placed in the record by the staff of the said Commission consisted of compilations from the books, accounts and reports of the complainant, with attacks on and criticism of said books and reports. At no time was there any statement made of record, nor, as I am informed and believe, was there any statement made otherwise, which indicated that the said presentation against the complainant was rested in whole or in part. At no time was there any indication given the complainant that an order of any kind would be entered in the case prior to further hearings thereon, or that the Commission was considering, contemplating, proposing or intending to make any order in the case prior to the final order which complainant understood would be entered only after completion of the investigation and opportunity to the complainant for presenting evidence and argument in opposition to any evidence offered by the staff of said Commission which complainant considered required rebuttal or argument. The complainant made reports to said Commission of its property, operations and earnings in accordance with law, and until said Commis-[fol. 370] sion had completed and set forth the criticisms or comments of its investigators the complainant was not in position or able to present its cause or know what matters to cover by evidence.

I have noted that in the affidavit of said David E. Lilienthal he discusses the cross-examination of the Commission's witnesses and states that counsel for complainant declined to proceed with the cross-examination of witnesses Colbert and Hayner and on part of the testimony of witnesses Bickley and Morehouse. The evidence presented by witness Colbert consisted of a report containing 390 pages of text, 47 schedules, 116 charts and tables, and a separate report on depreciation for Madison exchange, in addition to the oral testimony of the witness. I understood at the time said testimony was received that cross-examination was deferred by agreement between counsel and with the Commission in order to economize time at the hearing. It was stated by counsel for the complainant that cross-examination after study of the exhibits and testimony could be conducted more satisfactorily from the standpoint of the Commission, the witness, and the Commission's staff, than

by instantaneous cross-examination. As a matter of fact, study preparatory to cross-examination of the said Colbert required 350 man days in the complainant's engineering department, and 207 man days in the complainant's accounting department, in addition to preparation by counsel. It was also my understanding that cross-examination of witnesses Morehouse and Hayner was deferred for the same reasons, and that completion of cross-examination of witness Bickley was deferred as to the part of his testimony which was based upon the evidence in exhibits offered by witness Colbert.

In connection with the said cross-examination I have also noted the supplementary finding of the Commission dated September 6, 1932, attached to the affidavit of William M. [fol. 371] Dinneen, verified September 6, 1932. This supplementary finding purports to confirm the order of the Commission dated June 30, 1932, despite the intervening cross-examination of witnesses Colbert, Hayner, White, Bickley and Morehouse. In the cross-examination of said witness Colbert, and as a result of errors in both computation and methods shown by said cross-examination to exist in the work of said Colbert, a motion was made by counsel for the complainant to strike out the testimony and exhibits of the witness, the privilege of making this motion having been reserved at the time said exhibits had been offered and cross-examination was deferred. At the time of said motion complainant was asked to furnish the said Commission for the record a list of the additional errors, claimed by the complainant to exceed 100 in number, contained in said exhibit and not included in the cross-examination. At the time of said motion the Commission reserved a ruling thereon pending the filing of said list of additional errors. At the time the said supplementary findings of September 6, 1932, were entered the Commission had made no ruling upon the said motion and had not received said list of errors.

(Signed) Joseph F. Krizek.

Subscribed and sworn to before me this 16th day of September, 1932. My commission expires Dec. 11, 1932. (Signed) Mildred Roehr, Notary Public, Milwaukee County, Wis. (Seal.)

[fol. 372] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF CHARLES A. HEISS

STATE OF NEW YORK,
County of New York, ss:

Charles A. Heiss, being first duly sworn on oath, deposes and says:

I reside in East Orange, New Jersey. I am Comptroller of the American Telephone and Telegraph Company, having my office at No. 195 Broadway, New York City. I am a graduate of the Bloomsburg (Pennsylvania) State Normal School, and George Washington University, and studied at the University of Michigan. I hold a Bachelor of Arts degree from George Washington University, and a Master of Arts degree from the University of Michigan.

I spent approximately six years in the service of the Interstate Commerce Commission in its Accounting and statistical Departments. When I left the service of the Interstate Commerce Commission I held the position of Examiner of Accounts in its Bureau of Accounts. Since May, 1913, I have been with the American Telephone and Telegraph Company (hereinafter referred to as the American Company) and I have now completed twelve years of [fol. 373] service as Comptroller of that Company.

As Comptroller I have supervision over and access to all the books of account and accounting records of the American Company. I am familiar with the duties performed by the various departments of the Company and with the costs of performing such duties. The various departments send to the Comptroller each month their approved expense bills, and these are audited before being entered in the books of account. The Comptroller's organization prepares the payrolls of each department and also prepares and submits to each department, for administrative purposes a detailed monthly report of its total expenditures. Also as Comptroller of the American Company I have constant contact with the heads of the departments of the Company and their supervisory staffs.

The American Company performs two particular functions as follows: first, the operation of its Long Lines De-

partment, and second, the furnishing by its General Department of license contract services to the Associated Operating Telephone Companies (hereinafter referred to as Associated Operating Companies) and the Long Lines Department; the Wisconsin Telephone Company (hereinafter referred to as the Wisconsin Company (being one of such Associated Operating Companies. In addition the General Department of the American Company also incurs certain miscellaneous expenditures relatively minor in amount for work other than that performed for the benefit of the Associated Operating Companies and the Long Lines Department. These several functions and activities of the American Company are susceptible of graphic presentation in a broad general way in the form of a chart. I have made such a chart and attach it as Exhibit A to this affidavit.

The Long Lines Department as set out on this chart is separately administered having its own administrative board and executives. It also has separate traffic, plant, [fol. 374] engineering, commercial, and accounting departments. It defrays its own expenses, rents and taxes. The purpose of the Long Lines Department is to interconnect the telephone properties of the Associated Operating Companies throughout the United States and a portion of Canada, and the Department operates a comprehensive system of long-distance interstate telephone service. A separate accounting staff with separate books of account is maintained so that the costs of this Department can be readily and accurately separated from the other costs of the American Company. A bill is rendered each month by the American Company to its Long Lines Department for license contract services in the same manner as for the Associated Operating (licensee) Companies. The Long Lines Department is for all practical purposes a self contained operating entity.

The licensees, or Associated Operating Companies in the United States for whom the American Company performs license services are composed of twenty-three controlled operating companies (including the Long Lines Department) and two non-controlled operating companies. The Wisconsin Company is one of the controlled companies. The American Company owns 100% of its common (voting) capital stock. It operates in the state of Wisconsin,

and incidentally conducts certain exchange service very minor in extent in behalf of a few telephone subscribers in Michigan and Illinois near the Wisconsin state boundary line. Others of these licensee companies operate throughout the remainder of the United States. Taken together these companies comprise the Bell Telephone System.

There is no difference in the terms upon which license contract services are made available to these controlled and non-controlled companies.

The services performed for the licensee companies in the United States and for the Long Lines Department, and [fol. 375] the benefits accruing to such companies under the license contract are as follows:

(a) The right to use all telephonic devices, apparatus, methods and systems covered by patents of licensor (American Company).

(b) Protection against judgments for damages and profits in all actions and suits charging infringement of patents arising out of the use of any apparatus, methods or systems recommended by the licensor.

(c) The benefits derived from the continual performance by the American Company of research, investigation and experimentation in the development of the art of telephony, and in the development of plans, methods, systems and ideas designed to promote safety, economy and efficiency in the equipment, construction, and operation of the telephone plants of the licensee companies.

(d) Advice and assistance in general engineering, plant, traffic, operating, commercial, accounting (including the auditing of accounts), patent, legal, administrative and other matters pertaining to the efficient, economical and successful conduct of the business of the licensee companies.

(e) The right, for the betterment of the service, to extend to connecting companies in the territories of the licensee companies, the benefits of engineering and other technical advice and information in respect to construction, maintenance, repair and operation of plant as obtained from the American Company.

(f) Advice and assistance in financing the telephone business; assistance in securing funds on fair terms, and in the marketing of the securities of the licensee companies.

(g) The right to extend to subscribers and other patrons of the licensee companies and of their connecting companies the privilege of using, upon payment of the regular tolls therefor, the connections of the American Company to the territories of other companies.

[fol. 376] (h) Active assistance and cooperation in connection with personnel matters, such as employees' sickness, accident and pension benefit activities, and other general matters.

The Western Electric Company, Incorporated, which company is indicated on the attached chart Exhibit A, is the manufacturing and supply organization of the Bell System. The American Company owns over 98% of its stock. Under the Western Electric Company are two small subsidiary corporations made up of a real estate company, and a railway company having a short line from the Hawthorne plant (near Chicago) to Cicero, Ill., and devoted exclusively to moving products of the Western Electric Company. Also, there is the Teletype Corporation which manufactures teletypewriters which are used by the licensee companies. Also, the Electrical Research Products Inc., which at its own cost deals in and distributes non-telephone products of the Western Electric Company, thus segregating work which is non-telephone in nature. The Western Electric Company owns all of the voting stock of the two companies last mentioned. Then there is the Bell Telephone Laboratories, a corporation the stock in which is owned joinly by the Western Electric Company and the American Company. This company carries on a large part of the research and development work for the Bell System, requiring the use of laboratory equipment, which is in addition to the fundamental research and delevopment work performed by the American Company proper. The work done by the Bell Telephone Laboratories for the American Company, for the Western Electric Company, and the Electrical Research Products Inc., is billed at cost for services performed for these companies, respectively.

The entire stock of the 195 Broadway Corporation, which corporation is also indicated on the attached Exhibit A, is [fol. 377] owned by the American Company. This company is merely a realty company vested with the owner-

ship of the headquarters building of the American Company. The rental paid by the American Company is limited to the cost of operating the building, interest on funds borrowed, and taxes plus a 5% return on the capital stock investment.

The Bell Securities Company, which is also indicated on the attached Exhibit A, was organized to give information to investors concerning Bell System securities and to assist them in their transactions in these securities. All of the stock of this company is owned by the American Company.

There are three small transmission companies indicated on the Exhibit A attached; the Eastern Telephone and Telegraph Company, which was organized in connection with the work of building the transoceanic cable. The activities of this company are at this time merely subsidiary activities of the Long Lines Department. The Transpacific Company was organized to develop radio service between the Pacific coast and Hawaii, Honolulu, Japan, and other Far East points. The stock of both of these companies is entirely owned by the American Company. The Cuban-American Telephone and Telegraph Company operates cable facilities between Key West, Florida, and Havana, Cuba. The stock of this company is owned jointly by the American Company and the International Telephone and Telegraph Company.

Attached as Exhibit B to this affidavit is the license contract in effect between the American Company and the Wisconsin Company. This license contract is the same as for all other licensee companies in the United States.

There is also attached as Exhibit C certain resolutions modifying the license payment from 2½% of certain revenues, as provided in the license contract, to 1½% of such revenues.

[fol. 378] The books of account and records of the American Company are regularly kept in the due course of its business so as to show the costs incurred by its various departments. These departmental costs as shown by the books and records for the year 1931 were recently analyzed in detail, the respective department heads collaborating with me in this analysis, to determine those costs which are attributable to license contract activities of the American Company, as distinct from those costs which are for other activities. These detailed analyses were made in order

that such department heads and I might testify regarding said costs in the confiscation rate case affecting the property of the Illinois Bell Telephone Company—another of the licensee companies of the Bell System—now pending before a Statutory Court convened in the United States District Court for the Northern District of Illinois at Chicago, Illinois. Department heads or other competent representatives of such departments testified at great length and in detail in the Illinois Bell case, just referred to, regarding the license contract activities of the Development and Research Department—Operation and Engineering Department; Department of Operation—General; Information Department; Legal Department; Treasurer's Department; Comptroller's Department; Personnel Department and Benefit and Medical Department, and I similarly testified regarding the license contract activities of the other departments of the American Company not already mentioned.

I have reduced the result of these analyses for 1931 to the form of an exhibit which is attached to this affidavit as Exhibit D. This exhibit is a compilation of costs incurred by the American Company in rendering license contract services, including a statement of amounts received for license contract services. It excludes costs pertaining directly to the operations of the Long Lines Department, the [fol. 379] exact amounts of which can be established from the separate books of account which are kept for that Department; it also includes an appropriate deduction for costs attributable to other non-license activities of the American Company.

During July, 1931, prior to the preparation of the detailed analyses for the Illinois Bell Telephone Company case, I testified before the Public Service Commission of Wisconsin regarding the license contract activities of the American Company and the costs thereof as related to the years 1929 and 1930. At the time of giving such testimony I was not in a position to exclude from the total costs of the American Company the costs of its non-license activities, department by department, notwithstanding that from the nature of my duties as Comptroller and as a result of conferences with the other department heads I was cognizant that some deduction for these activities should be made. Accordingly, in order to then make ample, and more than

ample allowance, for such non-license costs I made a very substantial lump-sum (estimate) deduction therefor in my compilation of costs of license contract activities for each of the years 1929 and 1930. As a result of the preparation recently of the detailed analyses (referred to above) for the Illinois Bell case, I have obtained information and data enabling me to make substantially accurate deductions, department by department, for costs allocable to non-license activities. In preparing Exhibit D attached for 1931, I have made the deduction for costs incurred in non-license activities on the basis of the analyses made for the Illinois Bell case.

From Exhibit D it will be seen that for the year 1931 the cost to the American Company of furnishing the license contract services greatly exceeded the amounts received by it from the licensee companies under the contract, such excess cost being more than $11,500,000 for that year. I [fol. 380] also, using the same methods as in preparing license contract costs and results for 1931, made an estimate of the costs to the American Company incurred in rendering its license contract services for the first six months of 1932, making full deduction in such estimate for the costs of non-license activities based on the detailed departmental analyses used in the Illinois Bell case. Such costs for the first six months of 1932 aggregate at least $13,400,000; while license revenue receipts, including Long Lines Department, for the same period amounted to $7,576,153, resulting in an excess of costs over amounts received for the six months' period of more than $5,800,000. Based on the estimated results of the first six months, the excess of license contract service costs over receipts for license contract services for the full year of 1932 will, in my opinion, be at least $10,000,000.

The total license revenue received from all licensee companies of the American Company, including Long Lines Department, for the year 1931 was $16,135,455 of which amount $256,278, or 1.59% was received from the Wisconsin Company. The amount of such revenue received from the Wisconsin Company for the first six months of 1932 was $120,795 or 1.59% of total license revenue received for the same period.

I am familiar with the contract services furnished by the American Company to the several licensee companies, in-

cluding the Wisconsin Company, and in my opinion these services are necessary to the conduct of an efficient and comprehensive telephone business, intrastate as well as interstate, by the Wisconsin Company. The present development of telephone art in the United States generally and in the territory of the Wisconsin Company is in large measure a direct result of the benefits obtained under the license contract and of the services rendered by the American Company thereunder. The value of services rendered the Wisconsin Company under this contract has been and continues [fol. 381] to be much greater than the cost of such services to it, and the amount of compensation to the American Company provided for under the contract is very favorable to the Wisconsin Company. Services as comprehensive as those obtained by the Wisconsin Company under the license contract could not in my opinion be obtained by it from any other source; however, if it attempted to provide such services itself or to obtain them from other sources the cost to it would be much greater than that paid by the Wisconsin Company under the contract.

(Signed) Charles A. Heiss.

Sworn to and subscribed before me this 9th day of September 1932. My commission expires March 30, 1933. New York County Clerk's No. 161. New York County Reg. No. 32126. (Signed) James W. Green, Notary Public. (Seal.)

(Here follows Exhibit A—Chart, side folio 382)

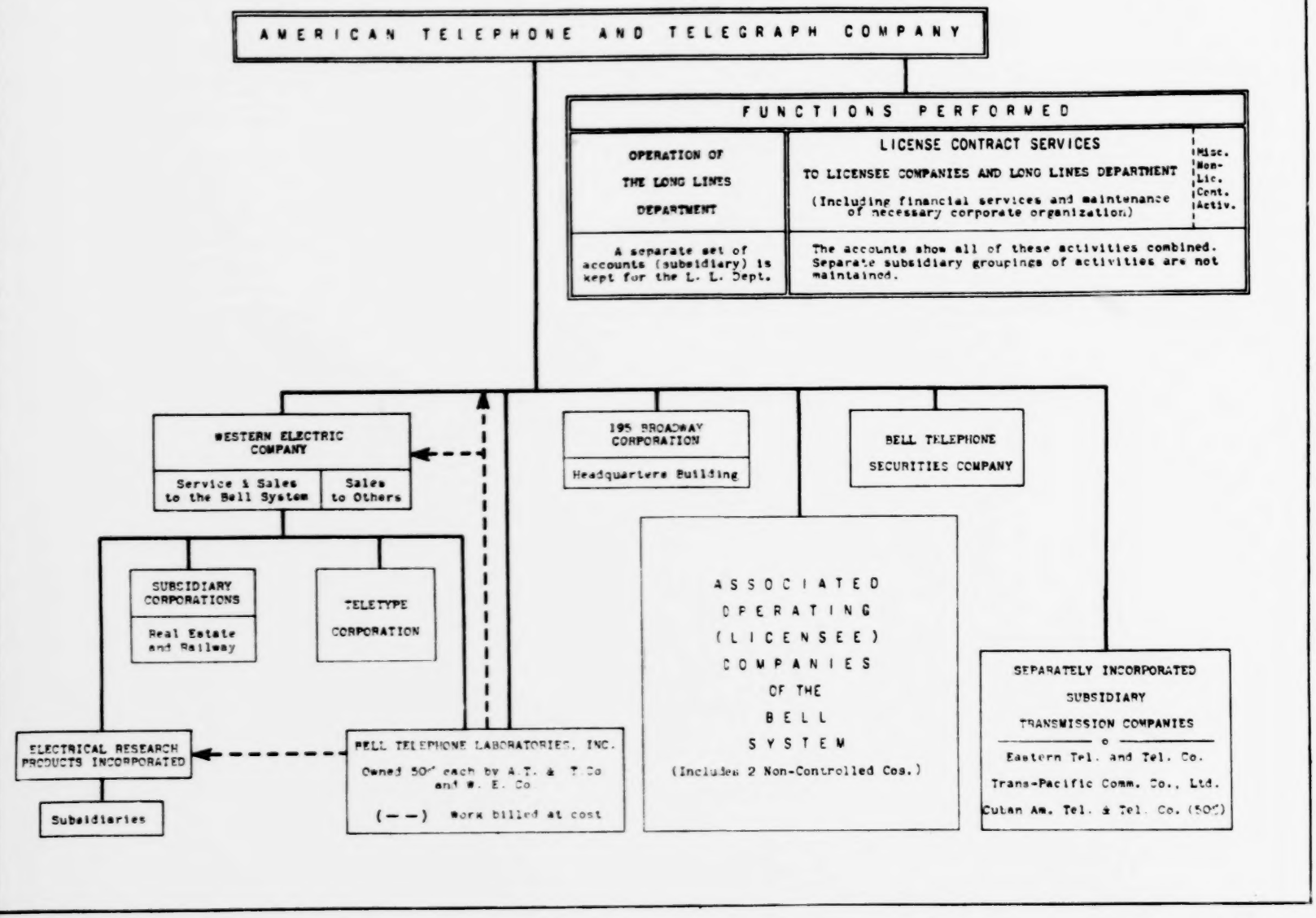


EXHIBIT "A" (C.A. Heiss)

[fol. 383] EXHIBIT B (C. A. HEISS)

Agreement Between American Telephone and Telegraph Company and Wisconsin Telephone Company Covering Services, Licenses, and Privileges

December 31, 1930

[fol. 383-1] This Agreement, dated this 31st day of December, 1930, between American Telephone and Telegraph Company, a corporation of the State of New York, hereinafter called the "Licensor," and Wisconsin Telephone Company, a corporation of the State of Wisconsin, hereinafter called the "Licensee," Witnesseth:

Whereas, the Licensee as an Associated Company of the Bell System has been and is now conducting a telephone business within the territory hereinafter defined under a certain license contract with the Licensor, particularly as evidenced by memorandum thereof dated June 27, 1919 and supplements thereto, and an agreement dated September 22, 1930, between the Licensor, the Licensee and the Northwestern Bell Telephone Company; and

Whereas, the agreement of the parties hereto that telephones manufactured under the patents of the Licensor shall be purchased by the Licensee for use within said territory rather than furnished and repaired as theretofore by the Licensor makes it desirable to state and reaffirm in this instrument the license and service contract relations which continue in force between them.

Now, therefore, in consideration of the premises and of the covenants and agreements herein set forth the parties hereto agree as follows:

1. For the purposes of this agreement:

(a) The telephone business of the Licensee is the furnishing to the public for compensation of telephone service within the territory of the Licensee as hereinafter defined.

[fol. 383-2] (b) An exchange means a system established to provide telephonic communication within a particular area usually within or embracing a city, town or village and environs. This system consists of one or more central offices together with the associated plant including circuits, equipment and telephones.

(c) The term "exchange service" applies to telephone service within an exchange area.

(d) The term "toll service" applies to telephone service between exchange areas.

2. The Licensee is licensed to use within its territory all telephones and all telephonic devices, apparatus, methods and systems needed for its business as defined herein which are covered by patents now or hereafter owned or controlled by the Licensor or which it may have the right to authorize the Associated Companies of the Bell System to use; but no such telephones, telephonic devices, apparatus, methods or systems shall be disposed of by the Licensee without the consent of the Licensor except to those licensed by the Licensor to use them or to manufacturers licensed by the Licensor.

The Licensee shall be protected and saved harmless by the Licensor from all actions or suits charging infringement of patents arising from the use of any telephones or telephonic devices, apparatus, methods or systems which the Licensor may recommend.

All rights not specifically granted to the Licensee remain to the Licensor.

3. The Licensor will prosecute continuously fundamental work of research, investigation and experimentation in the development of the art and science of telephony and in the development of plans, methods, systems and ideas designed to improve telephone service and to promote safety, economy and efficiency in the equipment, construction and operation of the telephone plants of the Associated Com- [fol. 383-3] panies of the Bell System, and will direct development work by others for the production of materials and apparatus necessary for rendering the products of such work of the Licensor available for use by such Associated Companies.

The Licensee shall have the right to use and the Licensor will render available for use by the Associated Companies of the Bell System as and when completed and standardized all products of the Licensor's fundamental work of research, investigation and experimentation, and all inventions, discoveries and patents, and all methods and systems covered by patents needed for the said business of the Licensee, and all apparatus and appliances, methods and

systems embodying such inventions, discoveries and patents, and to this end, if any patent rights held by others in any such invention or discovery are necessary to make such invention or discovery available for such use, the Licensor will, in case such invention or discovery relates to telephones, acquire the requisite patent rights therein, and, in case such invention or discovery relates to other than telephones, provide suitable arrangements for making the apparatus, appliances, methods and systems embodying such invention or discovery available for use as aforesaid; provided that each such acquisition or arrangement can, in the judgment of the Licensor, be consummated on reasonable terms.

4. The Licensor will make and maintain continuously in effect adequate arrangements whereby telephones and other telephonic devices and apparatus needed for the business of the Licensee may be manufactured under all patents now or hereafter owned or controlled by the Licensor, or under which it may have the right to grant licenses to others, and whereby the Licensee may purchase such telephones, telephonic devices and apparatus for use in its territory and subject to the provisions hereof, at prices which shall be reasonable and not higher than the [fol. 383-4] lowest prices charged by the manufacturer from time to time to others under similar circumstances.

5. The Licensor will furnish to the Licensee

(a) Advice and assistance in general engineering, plant, traffic, operating, commercial, accounting (including the auditing of accounts), patent, legal, administrative and other matters pertaining to the efficient, economical and successful conduct of said business of the Licensee; such advice and assistance to be given by the Licensor through conferences with its specialists and the issuance to the Licensee of data and conclusions, including bulletins, books, circular letters, and standard specifications and drawings, and through the performance of specific work in cases of unusual magnitude and complexity where such work is necessary or desirable.

(b) Advice and assistance in any financing required to be done by the Licensee in the extension, development or improvement of its telephone system within its territory

and in the general matter of its finances; aid in securing funds on fair terms, as and when needed for new construction and other expenditures, but not, at any time, to a greater extent than the then condition of the finances and credit of the Licensor may permit; active assistance in the marketing of the Licensee's securities; and such other necessary financial support and assistance in the premises as will tend to serve the best interests of both Companies.

(c) Active assistance, cooperation and support in connection with the adoption from time to time by the Licensee of such measures as will, in the judgment of the parties hereto, best protect and preserve the health and promote the well-being in employment of the employees of the Licensee and, in other ways, conserve the high quality of its service to the public through the maintenance of a stable, contented and efficient personnel.

[fol. 383-5] 6. The Licensor will maintain continuously an organization of specialists trained in the various branches of the work required to be done by the Licensor in rendering the foregoing services, of such numbers and possessed of such technical knowledge and experience as will enable said work to be so done as to relieve the Licensee from the necessity of attempting to perform said work for itself.

7. The Licensor will maintain continuously or cause to be so maintained proper connections between the telephone system of the Licensee and the telephone systems of the other Associated Companies of the Bell System and between places within the territory of the Licensee which the latter is not authorized to connect.

8. The Licensee shall have the right

(a) To extend to the subscribers and other patrons of the Licensee and of its connecting companies within its said territory the privilege of using, upon payment of the regular tolls therefor, the connections herein provided between its telephone system and the telephone systems of the other Associated Companies of the Bell System for telephonic communication between such subscribers and other patrons and the subscribers and other patrons of

such Associated Companies and of their connecting companies in their respective territories.

(b) For the betterment of the service throughout its said territory, to extend to its connecting companies within its said territory, on such terms and conditions as it may determine, the benefit of such engineering and other technical advice and information with respect to construction, maintenance, repair and operation of plant as the Licensee may receive from the Lincensor.

The Licensee shall not directly or indirectly connect with the lines of the Licensor or its appointees any telephone [fol. 383-6] facilities which in the judgment of the Licensor would unduly impair the quality of the service.

9. The Licensee may enjoy any of the rights of way and similar franchises of the Licensor to construct and maintain lines, which the Licensor can permit it to use, when and so long as, in the judgment of the Licensor, it shall not interfere with the enjoyment thereof by the Licensor or its other licensees, and may, to the extent and under the conditions aforesaid, use the Licensor's overhead and underground facilities for supporting or carrying wires (both open and in cable) upon paying a pro rata share of the cost of constructing and maintaining them, computed in accordance with the then existing practices of the parties, or such other reasonable compensation as may be agreed upon. For trunk lines from the several exchange offices to points outside of the respective exchanges, the Licensor may enjoy all rights of the Licensee to construct and maintain lines which the Licensee can permit it to use, when and so long as, in the judgment of the Licensee, it shall not interfere with the enjoyment thereof by the Licensee or its other Licensees, and may, to the extent and under the conditions aforesaid, use the Licensee's overhead and underground facilities for supporting or carrying the Licensor's wires (both open and in cable) upon paying a pro rata share of the cost of constructing and maintaining them, computed in accordance with the then existing practices of the parties, or such other reasonable compensation as may be agreed upon. The Licensor reserves the right to use telephones on lines connecting places in the territory of the Licensee with other places in said territory which the Licensee is not authorized to connect here-

under or with places outside said territory, or connecting places outside said territory with each other. The Licensee will allow the Licensor to connect the wires of any such lines with its said lines in order to constitute thereby a through line, of which the Licensee's lines or any part of [fol. 383-7] them can form a portion or link, in order to forward through communications or messages; will make or permit to be made convenient switchboard or other connections for that purpose, and as compensation for such use of its lines and for making such connections will take a share of the through toll (terminal expenses being first deducted) pro rata according to distance, and will also allow any telephone exchange located outside the territory of the Licensee to be designated by the Licensor to connect with the Licensee's lines for the purpose and substantially in the manner and upon the terms herein provided in respect of such trunk line connections. In respect of all communications or messages originating on its lines and which are to be routed or forwarded over any lines of the Licensor or its appointees, the Licensee shall require the patron or subscriber to bind himself to pay the tolls thereon and to make every communication or message subject to such contracts, stipulations, and limitations of liability as the Licensor may from time to time require, in such form as it may from time to time prescribe, and will hold the Licensor harmless from all loss or expense consequent upon the Licensee's failure so to do. Whenever the consent of a commission or other public tribunal to the use by the Licensor or the Licensee of the plant or other facilities of the other is required by law, no agreement made under and pursuant to the provisions of this paragraph shall be effective until such consent is obtained.

The Licensor may enter the offices and connect with the exchanges of the Licensee any lines to points without the territory of the Licensee or to points within said territory which the Licensee is not authorized to connect, in order to establish communication between patrons of such exchanges and parties at such points reached by said lines, and may there operate said lines with suitable appliances; the Licensee will permit its patrons to use such lines and by its own operators will handle such communications or messages to and from its patrons, or make the proper switch- [fol. 383-8] board or other connections for direct communi-

cation, as may be requested, and in such manner, not inconsistent with the proper conduct of its office, as the Licensor shall direct. But if the Licensor is not satisfied with the manner in which it is performed, it may establish its own offices and trunk and radiating lines for such purpose.

10. The Licensee will cause each of its exchanges to route, over the lines of the Licensor and of such parties as the Licensor may from time to time appoint, all communications to points outside the Licensee's territory, or to points within said territory which the Licensee is not authorized to connect, originating at such exchanges, on its lines, or at the exchanges or on the lines of its connecting companies within its territory, or coming on the wires or within the control of the exchange, where the Licensor or its said appointee has wires and will accept the communications, so far as the Licensee can lawfully control the same and unless otherwise specifically directed by its patrons, but the Licensee will not solicit such special directions or receive or pay tolls for transmission over other lines unless compellable by law so to do. Each such communication on which the charge is reversed shall be considered as originating at the station against which the charge is to be made.

The Licensee shall keep and furnish an account of each such communication, and shall collect and on demand pay over to the Licensor or its said appointees, respectively, the tolls for transmission beyond the exchange, according to such rates and rules as each shall establish, and shall exhibit its accounts and the tickets from which they are made, so far as may be proper to verify the same. The Licensee, in the handling of all business interchanged hereunder shall observe the Licensor's operating methods and rules from time to time established for the use of its lines and shall keep such records and furnish such reports [fol. 383-9] with respect thereto as the Licensor may from time to time reasonably request.

Each exchange shall, if and when so requested by the Licensor, make proper switchboard or other connection between the lines of the Licensor or its Licensees from points without such exchange and terminating in such exchange office, for the purpose thereby of making up a through line between points without such exchange. In respect of all

the business referred to in this Article, the Licensee shall make no charge to its own subscriber or patron, but shall be entitled to the following compensation and none other: Upon communications originating at an exchange or toll station of the Licensee or of a connecting company of the Licensee within its territory and passing over the lines of the Licensor or its appointees, compensation based upon the average revenue per originating message in accordance with the schedule of commissions set forth in Appendix A hereto attached and made part hereof; said compensation to cover the use of the necessary switchboard and trunking and other toll terminal plant and facilities and all the facilities and services of an exchange furnished for and in connection with such communications whether to or from such exchange, except the exchange service facilities required to establish connection between an exchange station and the toll terminal plant, for the use of which excepted facilities the Licensee is compensated by its rates for exchange service in such exchange. In case an exchange shall be required to make a switchboard connection for the purpose of making up a through line between points without such exchange, the exchange shall receive, for making such connection, such compensation as may be agreed upon.

11. In consideration of the premises and for all benefits accruing to the Licensee hereunder, the Licensee shall pay to the Licensor a sum equal to two and one-half per cent [fol. 383-10] (2½%) of the total gross earnings of the Licensee, which shall be payable in monthly installments, as herein provided, and in accordance with the established practice of the parties hereto, and shall be computed as follows: Such total gross earnings shall be computed by adding the following accounts described and defined in the Uniform System of Accounts for Telephone Companies prescribed by the Interstate Commerce Commission: Account 500 Subscribers' Station Revenues, Account 501 Public Pay Station Revenues, Account 504 Private Exchange Lines, and Account 510 Message Tolls, and by deducting from the total thereof, Account 304 Uncollectible Operating Revenues. To such gross earnings of the Licensee there shall be added an amount equal to the gross earnings, similarly computed, for each other telephone company operating in the territory of the Licensee in which the

Licensee owns a majority either of the voting stock or of the entire capital stock; provided, however, that on application by the Licensee for the exclusion of all or any portion of such gross revenues of any such operating company the question shall be carefully considered and determined.

The amount of each installment of said sum equal to two and one-half per cent (2½%) of the Licensee's total gross earnings due for each month shall be determined by such total gross earnings of the second preceding month, computed in the manner aforesaid, and a statement, over the signature of the proper accounting officer of the Licensee, of its total gross earnings for each calendar month, computed in the manner aforesaid, shall be sent to the Comptroller of the Licensor, or to such other officer of the Licensor as it may theretofore designate, on or before the twenty-fifth day of the next succeeding month and payment in New York funds shall be made on or before the tenth day of the month next following, that being the month for which such payment is due.

[fol. 383-11] The Licensee will make such reports, giving such information regarding the operations of its exchanges and lines as the Licensor may from time to time reasonably request.

12. If the Licensee shall fail to pay any sums due hereunder for thirty days after the same shall become payable or shall violate any other term or condition of this agreement and shall fail to remedy or repair the same for sixty days after written notice thereof from the Licensor, the Licensor may, if it shall so elect, by written notice to Licensee, terminate the rights of the Licensee hereunder and may resort to any of its rights and remedies in law or in equity under the patent laws or otherwise, including the remedy by injunction against the Licensee or those claiming under it.

13. The contractual relations hereunder are personal to the Licensee, and any assignment or attempt to assign its rights hereunder or the lines established hereunder or any of them, by act of the party or operation of law, without the written consent of the Licensor, will be good ground for a cancellation hereof by the Licensor. Whenever the Licensor grants to others the rights for exchanges or any of its rights under Articles 9 and 10 hereof or for connect-

ing lines or any other rights remaining to it, the stipulations hereof relating thereto shall be binding upon and inure to the benefit of such grantees, and the Licensor shall not be responsible for their acts or defaults. If the Licensor shall transfer to any party who shall agree to perform the stipulations hereof, its title to the patent rights under which telephones and apparatus are licensed herein, and its then existing rights hereunder, the provisions hereof shall inure to the benefit of and be binding upon such party in respect of all things done or to be done after such assignment, as if it were named a party hereto, and the Licensor shall no longer be responsible hereunder.

[fol. 383-12] 14. The rights of the Licensee hereunder shall be perpetual, unless determined as herein provided.

15. The territory of the Licensee hereunder is as follows, viz: The State of Wisconsin.

In witness whereof the parties hereto have caused their respective corporate seals to be hereto affixed and these presents to be subscribed in their names and behalf by their respective officers thereto duly authorized.

American Telephone and Telegraph Company, by C. P. Cooper, Vice-President. Attest: A. A. Marsters, Secretary. (Seal.) Wisconsin Telephone Company, by W. R. McGovern, President. Attest: John O'Day, Secretary. (Seal.)

C. M. B.

[fol. 383-13] Appendix "A"

Average revenue per out message		Messages from offices where the toll operating is done by	
Over	But not over	American Co. commission per out message	Associated Co. commission per out message
	$.75	$.112	$.290
$.75	.80	.113	.295
.80	.85	.114	.300
.85	.90	.115	.305
.90	.95	.116	.310
.95	1.00	.117	.315

Average revenue per out message		Messages from offices where the toll operating is done by	
Over	But not over	American Co. commission per out message	Associated Co. commission per out message
1.00	1.05	.118	.320
1.05	1.10	.118	.325
1.10	1.15	.119	.330
1.15	1.20	.119	.335
1.20	1.25	.120	.340
1.25	1.30	.120	.345
1.30	1.35	.121	.350
1.35	1.40	.121	.355
1.40	1.45	.122	.360
1.45	1.50	.122	.365
1.50	1.60	.123	.370
1.60	1.70	.124	.375
1.70	1.80	.125	.380
1.80	1.90	.126	.385
1.90	2.00	.127	.390
2.00	2.12½	.129	.400
2.12½	2.25	.129	.400
2.25	2.37½	.131	.410
2.37½	2.50	.131	.410
2.50	2.75	.132	.415
2.75	3.00	.133	.420
3.00	3.25	.134	.425
3.25	3.50	.135	.430
3.50	3.75	.136	.435
3.75	4.00	.137	.440
4.00	4.50	.138	.450
For each increase of .50 add		.001	.005

[fol. 384] EXHIBIT C (C. A. HEISS)

American Telephone and Telegraph Company

Executive Committee Meeting, December 5, 1928

Resolved: That the President be authorized to offer to the several licensee companies under existing License

Agreements to reduce, effective January 1, 1929, to one and one half per cent of their total gross earnings as defined in said License Agreements, the payments therein provided to be made by those companies to this Company; provided that this Company reserves the right to withdraw upon four months' notice in writing the reduction hereby authorized; and provided further that this action or any action pursuant hereto, shall not limit, impair, or in any way affect this Company's right under a like reservation that was made in connection with the reduction authorized by this Committee on November 16, 1927.

A tru- copy of resolution furnished Wisconsin Telephone Company by American Telephone and Telegraph Company.

—— ——, Secretary Wisconsin Telephone Company.

[fol. 384a] I hereby certify that the following is a true and correct copy of a resolution adopted by the Executive Committee of the American Telephone and Telegraph Company at a meeting held May 14, 1930:

Resolved: That the President and Vice President Cooper, and either of them, be authorized to execute agreements with the several associated companies, in form approved by the President and by the Vice President and General Counsel, stating and reaffirming the contractual relations then and immediately prior thereto existing between such associated company and this Company in connection with the licensing of telephones and telephonic apparatus suitable for use in connection therewith, and the furnishing of various services and privileges, by this Company; and to arrange that payments under such agreements be continued temporarily at the rate fixed by this Committee's resolution of December 5, 1928, upon the conditions therein set out.

A. A. Marsters, Secretary. (Seal.)

A true copy.

—— ——, Secretary Wisconsin Telephone Company.

[fol. 384b] American Telephone and Telegraph Company

A true extract from a copy of the minutes of a meeting of the Board of Directors of the Wisconsin Telephone Company held on December 23, 1930, on file in this office:

Resolved: That the restatement of the License Contract between this Company and the American Telephone and

Telegraph Company proposed in the letter of Mr. Charles P. Cooper, Vice President of said Company, dated March 2, 1928, and subsequent correspondence, which more specifically defines the territory within which this Company shall operate with reference to the same and which permits this Company to purchase and own telephone instruments and other apparatus and which contains other changes and modifications over the present License Contract, all of which are considered beneficial and desirable, be accepted by this Company, effective on January 1, A. D. 1931.

(Signed) A. A. Marsters, Secretary.

[fol. 384c] Copy

American Telephone and Telegraph Company, 195 Broadway

Charles P. Cooper, Vice-President

January 15, 1931.

Mr. W. R. McGovern, President Wisconsin Telephone Company, 722 North Broadway, Milwaukee, Wisconsin.

Dear Mr. McGovern: The Executive Committee of this Company has authorized me to execute the restatement of the License Agreement with your Company and to arrange that payments thereunder be continued temporarily at one and one-half (1½%) per cent, upon the same conditions that have applied heretofore under Mr. Gifford's letter to you dated December 11, 1928. A certified copy of the Resolution adopted by the Executive Committee is enclosed herewith.

I am in receipt of your letter of January 10th enclosing four copies of the restatement of the License Agreement on behalf of your Company; also certified copy of the action of the Board of Directors of Wisconsin Telephone Company. An executed copy of the Agreement is returned herewith for your files.

Very truly yours, C. P. Cooper, Vice-President.

A true copy.

—— ——, Secretary Wisconsin Telephone Company.

Enclosures.

[fol. 385] EXHIBIT D. (C. A. HEISS)

American Telephone and Telegraph Company

1. Compilation of Costs Incurred in Rendering License Contract Services*

2. Amounts Received for License Contract Services, Year 1931

1. Costs of Rendering License Contract Services:

Departmental:	
Development and Research	$8,873,209
Operation and Engineering	4,234,967
Operation—General	327,647
Personnel	1,080,695
Information	1,307,480
Public Relations	38,439
Legal	915,625
Comptroller	1,692,075
Treasurer	1,652,282
Secretary	56,343
General Service Bureau	517,808
Sundry Items	751,771
a) Total Departmental Costs	$21,448,341
b) Taxes	1,537,360
c) Cost (net) of carrying investment in physical property used in rendering License Contract Services	58,537
d) Cost (net) incurred in holding funds available during year to meet cash requirements of Licensee Companies	3,665,775
e) Cost (net) of Temporary Financing	1,709,528
f) Total	$28,419,541
g) Deduction for "Non-License" expenses ¶	750,011

* These costs do not include any amounts for Contingencies.

¶ This item comprises costs incurred for activities other than those which benefit the Associated Companies and Long Lines.

h) Balance—Costs incurred in rendering License Contract Services	$27,669,530
	#(1½%)
2. Amounts Received for License Contract Services:	
a) From Licensee Companies	$14,718,361
b) From Long Lines Department	1,417,094
c) Total Receipts for License Contract Services	$16,135,455
Balance	$11,534,075†

[fol. 386] IN UNITED STATES DISTRICT COURT

[Title omitted]

SUPPLEMENTARY AFFIDAVIT OF E. V. COX

STATE OF NEW YORK,
County of New York, ss:

E. V. Cox, being first duly sworn, on oath says:

On August 11, 1932 I made an affidavit in the above entitled action consisting of nine typewritten pages and four exhibits—A, B, C and D.

[fol. 387] On page 7 of that affidavit I made the following statement with respect to certain price comparison studies:

"For more than twelve years, from 1920 to date, I have made a systematic comparison, as above stated, of the prices paid by the Associated Companies, including the Wisconsin Telephone Company, to the Western Electric Company, Incorporated, for apparatus and lead covered

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Represents Per Cent of certain gross revenues, received as per License Contract.

[† Red in copy.]

cable of Western Electric Company's manufacture and for materials purchased through its agency with the prices for similar apparatus, cable and materials paid by non-Bell Companies and charged by other manufactures or suppliers."

At all times during the period 1920 to date the prices charged by Western Electric Company, Incorporated to its Bell customers have been and they now are substantially lower than the prices charged for comparable articles by other manufacturers or suppliers.

(Signed) E. V. Cox.

Subscribed and sworn to before me this 14th day of September, 1932. Term expires March 30, 1934. Clerk's No. 18. New York County Register's No. 4-G-75. (Signed) J. A. Gately, Notary Public, New York County. (Seal.)

[fol. 388] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF ARTHUR D. WELCH

STATE OF NEW YORK,
County of New York, ss:

Arthur D. Welch, being duly sworn, deposes and says that he is fifty-four years of age, a graduate of the University of Vermont, Class of 1902, with a degree of Bachelor of Science in Electrical Engineering.

That he has been employed by the New York Telephone Company and one of its predecessor companies, The New York and New Jersey Telephone Company, for more than 30 years. That during the first four years of said employment he was in the general engineering department of the company. That in 1906 he was assigned duties in connection with rate studies which work later developed into what has become known as commercial engineering. That he was General Commercial Engineer of the Company from 1907 to 1920. That on April 1, 1920, he became General

Commercial Superintendent of the New York Telephone Company. That in such position he had charge of all the commercial work of the company, which included the contacts with the public, carrying out of their service requirements and also the supervision of rate work, with the Gen-
[fol. 389] eral Commercial Engineer in immediate charge of that work reporting to him. That on May 1, 1928, he was appointed Assistant Vice President of the New York Telephone Company and has been, since that date, and now is in charge of the commercial section of the general operating staff and in such position has charge of the rate work and coordination of practices and other matters in the commercial end of the telephone business of the New York Telephone Company. That he has been, either directly or in a supervisory capacity, engaged in the rate-making activities of the company since 1906. That he is familiar with the representations made by this company in the cause entitled "New York Telephone Company vs. Prendergast, et al., In Equity 29-126" (36 F. (2d) 54), which was tried before a Special Master of the United States District Court for the Southern District of New York. That he has read the affidavit in this cause of Cyrus G. Hill, verified the 16th day of August, 1932, and particularly the allegations of said affiant in the last paragraph of page 4 of said affidavit and the subparagraphs numbered 1 and 2, beginning on page 4 and ending on page 5. That in his opinion the allegations set forth by said Hill in said subparagraphs numbered 1 and 2 are incorrect, in that they do not fully conform to the facts; that said subparagraph numbered 1 as stated is incorrect, because it fails to show that the New York Telephone Company did not treat its long lines toll service on the basis set forth, because all of that service was segregated on the basis of separation from toll board to toll board. That the allegations in subparagraph numbered 2 are incorrect in so far as the New York Telephone Company is concerned, in that they erroneously imply that that company compensates its connecting companies for Exchange services rendered between their subscribers' stations and their toll switchboards, but to affiant's knowledge this practice is not followed. That the New York Telephone Company does pay commissions on toll calls origi-
[fol. 390] nated and terminated in the territory of the con-

necting companies for the provision of toll terminal switchboards and facilities and for the work involved in collecting and remitting toll charges, but it does not make any provision for payment for exchange facilities between connecting company switchboards and the stations of their subscribers, for which services such companies are compensated in the exchange rates which they respectively charge. That in further amplification of affiant's opinion that the allegations in said subparagraph numbered 1 do not correctly state the facts, affiant alleges that the method followed by the New York Telephone Company in presenting its cause before the Special Master in New York Telephone Company vs. Prendergast, et al. (supra) was based on the following rate considerations:

A. Exchange Service.—Charges for exchange service covered the use of all facilities and operating services required to establish the connection.

B. Company Toll Service.—Charges for toll service over the lines of the New York Telephone Company (except when used in connection with the long distance service over lines of the American Telephone and Telegraph Company) covered all operating services and the use of all facilities required to establish connection, including subscribers' stations and circuits.

C. Long Distance Service Over Lines of the American Telephone and Telegraph Company.—The Toll rates for long distance service handled jointly by the New York Telephone Company and the American Telephone and Telegraph Company did not cover the use of facilities required to establish connection between an exchange station and toll switchboards or trunks leading thereto nor services [fol. 391] performed by the local company in making such connections to the toll switchboard.

The reason for selecting this method of separation described under B. was that the public requirement for telephone service in New York City and suburban territory, and consequently the rate structure and method of handling traffic, was such that the station to station basis of separation was deemed to be the best method to adopt, in view of the special circumstances and facts arising from the

extraordinary condition presented by the unique character of the great metropolitan area involved. That furnishing service to the said metropolitan area presented circumstances and conditions such as exist nowhere else in the United States, because of the extent and character of the telephone development and the speed of service and community of interest involved. That the City of New York comprises 309 square miles in area and has a maximum dimension north and south of 36 miles and east and west of 16.5 miles. Its five boroughs are largely separated by important natural barriers. At the time the separation was made, the City had a population of about 6,000,000 and was served by approximately 1,250,000 telephone stations. That prior to 1898 the City of New York comprised only the Island of Manhattan and the present Borough of the Bronx, the present Borough of Brooklyn was a separate municipality and the present Borough of Queens comprised several cities, towns and villages under separate municipal governments; Staten Island, the present Borough of Richmond, was likewise a separate community. That these five boroughs were all consolidated into what is now known as New York City in 1898. That telephone service was originally developed in these separate cities and communities on the basis of local service within the respective areas and tolls were charged on calls to other communities now included in said New York City. That when the Greater [fol. 392] City was created in 1898 the basis for furnishing and charging for telephone service was continued as formerly developed, as that at that time was the best way to meet the requirements of the various communities. As time went on and these communities grew in size and importance, the gaps separating them from their neighbors were gradually closed so that, with the exception of some sections of Queens and Richmond, the City presents substantially continuous real estate development. This rate treatment in New York City was unique, in that within a single municipality there was a combination of so-called exchange service and toll service, whereas, in other cities throughout the United States, the normal rate plan includes the entire city within an exchange service area. These changes, due to growth and increasing community

of interest, caused the rate plan for telephone service in the city to be modified from time to time to meet changing conditions, but the principle of separate zones for exchange service within the city and a toll charge for calls to other zones within the city, which had been in effect for many years because of the physical, business and social conditions, was continued by the order of the Public Service Commission, which was attacked in said New York Telephone Company vs. Prendergast, et al., (supra), without any change in the number of zones, although the level of charges was modified somewhat in that order. That from an economic, business and social viewpoint even New York City is not self-contained but is very closely associated with an extensive suburban community, comprising roughly Nassau and Suffolk Counties on Long Island and Westchester and Rockland Counties on the north, as well as a populous territory in northern New Jersey. The real estate development was continuous from the city limits outwards for a distance of several miles into these suburban sections. Rapid transit facilities existed in large number. Numerous highways afforded rapid communication. The number of commuters from these areas who daily came to their business in New York City numbered 300,000 or more. [fol. 393] New York City affords the principal shopping center for this area. This entire metropolitan area is very closely associated in all its interests and activities and is analogous to the situation existing in the average single city elsewhere in the United States. That, due to the large area included in this metropolitan section and the different interests of localities within the larger area, it was not practicable to furnish telephone service on a single area basis throughout this large community. That it was necessary to have smaller exchange areas in order that the rate might be low enough to attract a large development and that toll calls to more distant portions might be charged to those who had use therefor. That this produced a flexible and equitable system of charging for service and brought the price within the range of a very large number of users. That if exchange rates were fixed on the basis of affording communication throughout this area without toll charges, the level of such charges would of necessity have to have been so high that development

would have been seriously curtailed, the value of the service impaired and the interests of the public could not have been so well served. That because of the closely associated character of this metropolitan district the necessity for quick and simple means of telephone communication, the so-called toll calls were handled in much the same manner as exchange calls. The subscriber called by number and remained at the telephone until he received the connection and had completed his conversation. He gave his order to an operator in his central office, who passed the call to an operator at a distant office and supervised the connection. It was not supervised by a toll operator but was handled by the same operators that handled exchange calls and was and is commonly known as the A-B method of operation. That these toll calls within the metropolitan area were practically a subdivision of exchange calls for the purpose of securing a flexible system of charging for service. That they were not and are not handled [fol. 394] in the same manner as normal toll business, nor did they nor do they occupy the same place in the public mind. That at the time of presentation of testimony in New York Telephone Company vs. Prendergast, et al. (supra) the part of the New York metropolitan area within New York State comprised 63.5% of the total population of New York State and had 70.6% of all the telephone stations in said state and thereby became the dominant factor in the New York State situation, and influenced the whole question of rate treatment throughout the state. That the conditions above described have no parallel in any part of the territory served by the Bell System in this country, in size, in conditions encountered or in the historical development whereby previously existing methods of service of parts of a greater metropolitan area were continued and modified only so far as necessary to meet changing conditions, while meeting the extraordinary demands for speed of service and community of interest. That for the toll business originating or terminating in the territory of the New York Company and passing over the lines of the American Telephone and Telegraph Company the separation made in the case of New York Telephone Company vs. Prendergast, et al. (supra) was on the so-called toll board to toll board basis. In respect to such business, none of the

exchange property used to connect the station with the toll board was treated as property devoted to toll service. The characteristics of this traffic originating or terminating in the territory of the New York Company do not differ from those of long distance traffic originating elsewhere in the United States and because the special and unique conditions existing in New York City as to exchange and A-B toll service have no effect whatever on the long distance service, the toll property of the New York Telephone Company devoted to long distance service was separated on the [fol. 395] same basis as commonly followed elsewhere in the United States in making such separations.

(Signed) Arthur D. Welch.

Subscribed and sworn to before me this 13th day of September, 1932. My commission expires March 30, 1933. Certificate filed in New York County. New York County Clerk's No. 707, Register's No. 3R469. (Signed) Edward C. Ryder, Notary Public for Queens County. (Seal.)

[fol. 396] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF R. H. GREGORY

STATE OF NEW YORK,
County of New York, ss:

Personally appeared before me this 13th day of September, 1932, R. H. Gregory, who is personally known to me and who, being duly sworn, on oath says:

My name is R. H. Gregory. I live at Montclair, New Jersey. I am Comptroller of the Western Electric Company, Incorporated (which I shall refer to as Western Electric). I entered the service of Western Electric on [fol. 397] August 1, 1903, shortly after graduating from college. In 1905 I was made Assistant Secretary. In 1908 I was made Comptroller, and I have held that office continuously since that time. As Comptroller of Western Electric I have supervision of all the books and records of

the company, and am responsible for the preparation of the Balance Sheet and Profit and Loss Reports.

From 1916 to the present time Western Electric has been engaged chiefly in the manufacture of telephone apparatus and cable and the sale of such products to the Bell associated companies (including the Wisconsin Telephone Company) and in the purchase and sale to such companies of supplies. The Bell associated companies consist of those companies with which Western Electric has supply contracts. They are principally the operating telephone companies in the Bell System, that is, companies which hold a license contract from the American Telephone and Telegraph Company and in which the American Telephone and Telegraph Company owns either a substantial or a controlling interest. The Bell associated companies also include some connecting telephone companies not owned or controlled by the American Telephone and Telegraph Company or any of the other companies in the Bell System but with which Western Electric has made supply contracts. Western Electric's business with the Bell associated companies will be referred to as its Bell business.

The manufacturing plants now owned and operated by Western Electric are: the Hawthorne plant located at Chicago, Illinois; the Kearny plant located near Kearny, New Jersey; the Point Breeze plant at Baltimore, Maryland; and the Queensboro plant located on Long Island, New York. The Hawthorne plant has been operating continuously since 1905; the Kearny plant since 1925; and the Point Breeze plant since 1929. The Queensboro plant was acquired in 1929.

[fol. 398] Western Electric operates thirty-two distributing houses located in the principal cities throughout the United States from which its manufactured goods and supplies are distributed to its customers. The company also maintains an organization for the installation of central office telephone equipment which has thirteen branches throughout the principal cities of the United States.

The headquarters of Western Electric are in New York City.

The dollar sales of goods manufactured by Western Electric for the period 1916 to 1931 amounted to nearly $2,400,000,000. The lowest year was 1916, when sales amounted to $46,500,000, and the highest was 1929, when

sales amounted to $278,000,000. During the period 1916 to 1931 the lowest number of employees of the company was 17,000 in 1916, and the highest number was 85,300 in January 1930.

The dollar sales of goods manufactured by Western Electric and sold to the Bell associated companies during the period 1916 to 1931 amounted to $2,135,000,000. The dollar sales of goods manufactured by Western Electric and sold to non-Bell (other than Bell associated companies) during the period 1916 to 1931 amounted to $233,000,000.

Western Electric keeps complete and accurate books and accounts designed to record in the most economical way the facts of the business done. The company's cash books, ledgers and journals are kept at the executive headquarters, 195 Broadway, New York. Subsidiary cash books, ledgers and journals have been kept at the various manufacturing departments, installation divisions and distributing houses to which I have referred. These general company ledgers which are kept at the executive offices of the company and [fol. 399] the subsidiary records which are kept at the various other points are kept in accordance with accounting routines and instructions issued from time to time by me. These routines prescribe the principles of accounting for action by all departments of the company and insure accuracy and uniformity. Since 1922 certified public accountants have audited Western Electric's books and certified to the accuracy of the balance sheets and income statements.

The sales to the Wisconsin Telephone Company are a fair cross section of Western Electric's sales to all Bell associated companies, and the rate of profit to sales made by Western Electric on its total sales to all Bell associated companies is the correct rate of profit applicable to sales to the Wisconsin Telephone Company.

The books of Western Electric do not show separately the profits made on sales to the Bell companies and to others, but during the period 1916 to 1931 those profits have been determined by periodic studies made in the regular course for the guidance of the company's executives. The results of these studies are shown in the statement attached as Exhibit A to this affidavit.

In preparing this statement and in making the studies to determine the profits made on the company's sales to

the Bell associated companies it was necessary for me to allocate the expenses, investment and profits between the Bell and non-Bell business. Such allocations have been made continuously for a long number of years by me or under my supervision. The methods used can be generally described as follows: With respect to articles manufactured by Western Electric—the manufacturing cost of equipment and apparatus is the same whether sold to Bell or non-Bell companies and is therefore directly allocable; installation [fol. 400] cost is also a direct cost connected with a particular product; development costs where not directly allocable are allocated on the basis of shop cost of the product sold; other costs where not directly allocable are allocated on the basis of shop cost of the product sold or on the basis of time studies. With respect to goods not manufactured by Western Electric, the allocations where they cannot be made directly are made on the basis of the cost of the goods sold or on the basis of time studies.

In my judgment, these methods of allocation are sound and the best methods to use. I believe the results so obtained are accurate.

I attach as Exhibit A to this affidavit a statement prepared under my supervision by these methods which shows the sales, net profits and average investment of Western Electric in its business done with Bell associated companies for the years 1916 to 1931 inclusive. The rate of profit on investment during these years varies from 3.4% to 10.7%, and for the sixteen-year period averages 6.6% on the investment.

In order to show the reasonableness of the earnings of Western Electric as compared with other manufacturing companies a study was made by me from available data of the earnings from 1925 to 1930 inclusive of 88 manufacturing companies. The companies selected were fairly comparable with Western Electric in size and in character of business transacted and were subject to substantially equal risks and hazards in their business. The results of these companies for these years are shown on Exhibit B attached hereto. Their average annual return was 12.2%.

For 38 of the 88 companies data as to total sales were available. These were obtained and net profits were related to sales. Out of the 38 companies, 32 had a larger per cent

[fol. 401] net profit to sales than Western Electric had on its Bell business for the same period. The results of these 38 companies and a comparison of such results with those obtained by Western Electric are shown on Exhibits C and D attached to this affidavit.

The fair and reasonable way to judge the adequacy and reasonableness of the profits of a manufacturing company is to consider the average over a period of years. In my opinion the profits earned by Western Electric on its business done with Bell associated companies have at all times been well within reasonable limits.

There is attached hereto as Exhibit E a copy of the contract dated June 2, 1930 in effect between Western Electric and the Wisconsin Telephone Company known as the supply contract. This contract is similar to those in effect between Western Electric and other Bell licensee companies.

The prices charged by Western Electric are the same to all Bell associated companies for apparatus, equipment and cable. In no case does any connecting company treated as a Bell associated company or any company not a Bell associated company pay prices lower than those charged by Western Electric to the Wisconsin Telephone Company and the other Bell licensee companies. Prices for apparatus and equipment charged to other companies, including subsidiaries of Western Electric who act as distributors to non-Bell customers and including non-controlled companies, are always as much as or more than those charged to Bell licensee companies. The distributor companies referred to are able, in turn, to sell such equipment and apparatus at a profit in competition with other manufacturers in the open market.

Substantial savings accrue to the Bell licensee companies, including the Wisconsin Telephone Company, from the operation of the attached contract.

[fol. 402] In my opinion the prices charged by Western Electric in its Bell business are fair and reasonable.

(Signed) R. H. Gregory.

Sworn to and subscribed before me this 13th day of September, 1932. Commission expires March 30, 1934. King's Co. Clerk's No. 105, Reg. No. 4106. New York Co. Clerk's No. 224, Reg. No. 4A126. (Signed) Harry Anisansel, Notary Public. (Seal.)

[fol. 403] EXHIBIT A (R. H. GREGORY)

Western Electric Co., Inc.

Sales, Net Profits, and Average Investment Bell Business 1916 to 1931, Inclusive

(Dollars in Thousands)

	Sales	Total cost of sales	Net profits	Per cent net profits to sales	Average investment	Per cent return on investment
1916	$73,915	$71,775	$2,140	2.9	$46,112	4.6
1917	104,682	102,157	2,525	2.4	66,184	3.8
1918	79,217	76,796	2,421	3.1	70,685	3.4
1919	80,361	77,674	2,687	3.3	69,939	3.8
1920	130,712	125,857	4,855	3.7	98,914	4.9
1921	142,885	131,747	11,138	7.8	125,330	8.9
1922	159,957	153,595	6,362	4.0	123,089	5.2
1923	188,159	181,967	6,192	3.3	131,504	4.7
1924	233,300	222,425	10,875	4.7	158,488	6.9
1925	226,700	210,448	16,252	7.2	163,085	10.0
1926	247,203	234,652	12,551	5.1	160,255	7.8
1927	241,062	224,194	16,868	7.0	167,371	10.1
1928	267,808	250,524	17,284	6.5	161,378	10.7
1929	372,384	355,012	17,372	4.7	204,507	8.5
1930	338,830	327,145	11,685	3.4	270,556	4.3
1931	219,535	209,035	10,500	4.8	270,423	3.9
Total	3,106,710	2,955,003	151,707	4.9	2,287,820	6.6

[fol. 404] EXHIBIT B (R. H. GREGORY)

Return on Investment of 88 Manufacturing Companies

(Six-year Period 1925–1930)

(Dollars in Thousands)

	Average investment	Average annual earnings
1. Air Reduction	$29,171	$3,521
2. Allied Chemical	317,681	25,249
3. American Agricultural Chemical	72,555	2,394
4. American Chain	31,065	2,415
5. American Cyanamid	28,676	2,079
6. American Ice	37,458	3,459
7. American Locomotive	112,353	4,732
8. American Radiator	124,972	13,159
9. American Safety Razor	7,440	1,220
10. American Snuff	13,165	1,912
11. American Steel Foundry	59,479	4,154
12. Archer-Daniels-Midland	18,730	1,816
13. Atlas Powder	26,590	2,005
14. Bliss, E. W.	28,809	890
15. Brown Shoe	19,485	1,631
16. Burroughs	39,294	7,629
17. Case, J. I.	41,660	3,398
18. Caterpillar Tractor	32,807	7,265
19. Chrysler Motors	123,142	19,026
20. Columbian Carbon	29,456	2,763
21. Congoleum-Nairn	39,583	1,674
22. Congress Cigar	10,255	2,492
23. Consolidated Cigar	19,614	3,606
24. Continental Baking	68,676	7,181
25. Continental Can	59,168	6,352
26. Continental Motors	34,680	1,350
27. Deere & Co	76,065	9,248
28. Dennison	16,260	1,121

	Average investment	Average annual earnings
29. Diamond Match	31,728	1,610
30. DuPont	243,927	22,626
31. Electric Storage Battery	50,490	6,467
32. Endicott-Johnson	53,036	3,762
33. Eureka Vacuum Cleaner	6,218	1,144
34. Fairbanks-Morse	40,040	2,409
35. General Baking	36,734	6,784
36. General Cigar	28,873	3,650
37. General Electric	529,720	52,797
38. General Motors	824,210	201,377
39. General Railway Signal	13,477	2,809
40. Glidden	22,924	2,259
[fol. 404a]		
41. Goodrich	130,924	8,063
42. Goodyear	221,163	18,755
43. Holland Furnace	12,920	1,790
44. Hudson Motor	61,361	10,716
45. Hupp Motor	28,880	3,146
46. Ingersoll-Rand	45,340	7,391
47. International Business Machine	29,165	5,304
48. International Cement	51,447	4,853
49. International Harvester	338,023	26,635
50. International Shoe	98,871	14,899
51. International Silver	22,314	1,208
52. Liggett & Meyers	138,031	21,207
53. Liquid Carbonic	16,305	1,582
54. Lorillard	72,333	4,858
55. Mack Truck	72,175	6,488
56. Marlin Rockwell	10,539	1,605
57. Mathieson Alkali	22,063	1,915
58. Motor Wheel	15,848	2,202
59. Nash Motors	53,539	18,118
60. National Cash Register	57,172	6,983
61. National Lead	114,498	6,023
62. National Supply	48,184	4,172
63. Parke, Davis	26,652	7,454
64. Proctor & Gamble	104,195	16,936
65. Purity Bakeries	22,278	4,109
66. Radio Corp	71,324	10,890
67. Remington Arms	33,482	1,544
68. Reo Motors	35,059	3,099
69. Reynolds Tobacco	143,283	29,532
70. St. Regis Paper	46,603	2,601
71. Simmons	47,061	3,382
72. Smith, A. O.	25,055	3,967
73. Spalding, A. G	21,065	1,717
74. Spicer, Mfg	15,074	1,560
75. Stewart Warner	32,822	5,297
76. Studebaker	114,453	11,339
77. Timken Detroit Axle	20,509	1,465
78. Timken Roller Bearing	41,962	10,254
79. Torrington Mfg	11,346	2,120
80. Union Carbide	256,803	27,968
81. U. S. Gypsum	54,436	6,812
82. U. S. Industrial Alcohol	38,306	2,048
83. Ward Baking	39,214	3,773
84. Warren Bros	16,002	1,982
85. Westinghouse Electric	255,637	18,938
86. White Motor	44,973	1,634
87. Willys-Overland	84,668	2,767
88. Yale & Towne	24,956	1,913
Total 88 Companies	$6,687,979	$814,449
Per Cent Earned on Investment, 88 Companies		12.2%

[fol. 404b] 88 Manufacturing Companies

1. Air Reduction Company, Inc.
2. Allied Chemical & Dye Corporation.
3. American Agricultural Chemical Company.
4. American Chain Company, Inc.
5. American Cyanamid Company.
6. American Ice Company.
7. American Locomotive Company.
8. American Radiator & Standard Sanitary Corporation.
9. American Safety Razor Corporation.
10. American Snuff Company.
11. American Steel Foundries.
12. Archer-Daniels-Midland Company.
13. Atlas Powder Company.
14. Bliss (E. W.) Company.
15. Brown Shoe Company, Inc.
16. Burroughs Adding Machine Company.
17. Case (J. I.) Company.
18. Caterpillar Tractor Company.
19. Chrysler Corporation.
20. Columbian Carbon Company.
21. Congoleum-Nairn, Incorporated.
22. Congress Cigar Company, Inc.
23. Consolidated Cigar Corporation.
24. Continental Baking Corporation.
25. Continental Can Company, Inc.
26. Continental Motors Corporation.
27. Deere & Company.
28. Dennison Manufacturing Company.
29. Diamond Match Company.
30. Du Pont (E. I.) de Nemours & Company.
31. Electric Storage Battery Company.
32. Endicott Johnson Corporation.
33. Eureka Vacuum Cleaner Company, Inc.
34. Fairbanks, Morse & Company.
35. General Baking Company.
36. General Cigar Company, Inc.
37. General Electric Company.
38. General Motors Corporation.
39. General Railway Signal Company.
40. Glidden Company.
41. Goodrich (B. F.) Company.

42. Goodyear Tire & Rubber Company.
43. Holland Furnace Company.
44. Hudson Motor Car Company.
45. Hupp Motor Car Corporation.
[fol. 404c] 46. Ingersoll-Rand Company.
47. International Business Machines Corporation.
48. International Cement Corporation.
49. International Harvester Company.
50. International Shoe Company.
51. International Silver Company.
52. Liggett & Myers Tobacco Company.
53. Liquid Carbonic Corporation.
54. Lorillard (P.) Company.
55. Mack Trucks, Inc.
56. Marlin-Rockwell Corporation.
57. Mathieson Alkali Works, Inc.
58. Motor Wheel Corporation.
59. Nash Motors Company.
60. National Cash Register Company.
61. National Lead Company.
62. National Supply Company of Delaware.
63. Parke, Davis & Company.
64. Proctor & Gamble Company.
65. Purity Bakeries Corporation.
66. Radio Corporation of America.
67. Remington Arms Company, Inc.
68. Reo Motor Car Company.
69. Reynolds (R. J.) Tobacco Company.
70. St. Regis Paper Company.
71. Simmons Company.
72. Smith (A. O.) Corporation.
73. Spalding (A. G.) & Brothers.
74. Spicer Manufacturing Corporation.
75. Stewart-Warner Corporation.
76. Studebaker Corporation.
77. Timkin-Detroit Axle Company.
78. Timkin Roller Bearing Company.
79. Torrington Company (of Maine).
80. Union Carbide & Carbon Corporation.
81. United States Gypsum Company.
82. U. S. Industrial Alcohol Company.
83. Ward Baking Corporation.
84. Warren Brothers Company.

85. Westinghouse Electric & Manufacturing Company.
86. White Motor Company.
87. Willys-Overland Company.
88. Yale & Towne Manufacturing Company.

[fol. 405] EXHIBIT C (R. H. GREGORY)

Net Profits to Sales, 38 Manufacturing Companies

(Six-year Period 1925–1930)

This list includes all of the manufacturing companies used in computations of earnings on investment, for which sales information is available in at least four out of the five years, 1925-1929 inclusive.

(Dollars in Thousands)

	Sales	Net profits
Air Reduction	$93,756	$20,193
American Ice	118,497	18,217
Atlas Powder	120,499	10,581
Brown Shoe	197,077	9,783
Caterpillar Tractor	200,726	43,842
Chrysler	1,371,184	102,978
Columbian Carbon	56,905	15,179
Congress Cigar	97,740	14,537
Electric Storage Battery*	231,359	26,969
Endicott-Johnson	405,335	22,574
Eureka Vacuum Cleaner	62,769	6,865
Fairbanks-Morse	175,472	13,728
General Electric	2,058,562	219,291
General Motors	7,009,808	1,187,674
Glidden	176,084	13,265
Goodrich	904,872	43,216
Goodyear	1,369,399	95,015
Holland Furnace	96,537	10,739
Hupp Motor	290,004	14,786
International Cement	146,012	28,039
International Shoe	712,752	86,714
International Silver	112,583	6,522
Liquid Carbonic*	57,102	6,943
Mack Truck	349,986	38,928
National Cash Register	291,982	40,394
National Supply	60,853	20,213
Proctor and Gamble	996,246	94,500
Purity Bakeries**	170,721	18,616
Remington Arms	112,755	8,275
Reo Motors	290,813	12,369
Simmons	229,742	19,852
Spalding, A. G.	146,495	8,729
St. Regis Paper	81,760	13,720
Studebaker	845,425	66,263
U. S. Industrial Alcohol***	107,037	3,801
Warren Bros.	123,120	7,096
Westinghouse Electric	1,112,706	92,670
White Motor**	305,208	6,473
Total	21,289,883	2,469,549
Net Profits to Sales, 38 Companies		11.6%

* 1926–1930 only.
** 1925–1929 only.
*** 1925–1928 only.

[fol. 406] EXHIBIT D (R. H. GREGORY)

Net Profits to Sales, 39 Manufacturing Companies

(Six-year Period 1925-1930)

This list includes all of the manufacturing companies used in computations of earnings on investment, for which sales information is available in at least four out of the five years, 1925-1929 inclusive.

	Per cent		Per cent
1. National Supply	33.2	21. Simmons	8.6
2. Columbian Carbon	26.7	22. Westinghouse Electric	8.3
3. Caterpillar Tractor	21.8	23. Studebaker	7.8
4. Air Reduction	21.5	24. Fairbanks-Morse	7.8
5. International Cement	19.2	25. Glidden	7.5
6. General Motors	16.9	26. Chrysler	7.5
7. St. Regis Paper	16.8	27. Remington Arms	7.3
8. American Ice	15.4	28. Goodyear	6.9
9. Congress Cigar	14.9	29. A. G. Spalding	6.0
10. National Cash Register	13.8	30. International Silver	5.8
11. International Shoe	12.2	31. Warren Bros	5.8
12. Liquid Carbonic*	12.2	32. Endicott-Johnson	5.6
13. Electric Storage Battery*	11.7		
14. Holland Furnace	11.1	33. Western Electric	5.4
15. Mack Truck	11.1		
16. Eureka Vacuum Cleaner	10.9	34. Hupp Motor	5.1
17. Purity Bakeries**	10.9	35. Brown Shoe	5.0
18. General Electric	10.7	36. Goodrich	4.8
19. Proctor & Gamble	9.5	37. Reo Motors	4.3
20. Atlas Powder	8.8	38. U.S. Industrial Alcohol***	3.6
		39. White Motor**	2.1

* 1926–1930 only.
** 1925–1929 only.
*** 1925–1928 only.

[fol. 407] EXHIBIT E (R. H. GREGORY)

Western Electric Company, Incorporated, and Wisconsin Telephone Company

Standard Supply Contract, Dated June 2, 1930

[fol. 407-1] Memorandum of agreement dated June 2, 1930, between Western Electric Company, Incorporated, a corporation of the State of New York, hereinafter called the Electric Company, and Wisconsin Telephone Company, a corporation of the State of Wisconsin, hereinafter called the Telephone Company, Witnesseth:

That in consideration of the covenants and agreements herein contained, it is agreed by and between the parties hereto as follows:

Article I

Scope

1. Manufacture and Purchase of Materials.

The Electric Company will manufacture or purchase materials which the Telephone Company may reasonably require for its business and which it may order from the Electric Company; provided, however, that nothing herein contained obligates the Telephone Company to purchase any materials from the Electric Company.

2. Delivery of Materials.

The Electric Company will deliver said materials to the Telephone Company upon its written orders, in such quantities, in such manner, and at such times as the Telephone Company may reasonably designate.

[fol. 407-2] 3. Inspection of Materials.

The Electric Company, as authorized by the Telephone Company, will make technical and engineering inspections of materials not of its own manufacture furnished by it to the Telephone Company.

4. Equipment Specifications and Installations.

The Electric Company will prepare such equipment specifications and perform such installations of materials as the Telephone Company may reasonably require for its business and may order from the Electric Company.

5. Distributing Storerooms.

The Electric Company will maintain distributing storerooms as at present established or at such points as from time to time may be agreed upon, for the distribution of materials to the Telephone Company.

6. Stocks of Materials.

(a) The Electric Company will exercise due diligence in maintaining at all times, at its distributing storerooms, reasonable stocks of materials, except apparatus which must be specially assembled for each job (such as central office switchboards) and other materials which are customarily shipped direct, such as poles and directories.

"Reasonable stocks" means such quantities as the Telephone Company may reasonably require for its business, giving due consideration to variations in demand, seasonal requirements, conditions of the market and length of time required to transport materials from the sources of supply to the Electric Company's distributing storerooms.

(b) The Electric Company will carry such special stocks of materials as the Telephone Company may authorize.

[fol. 407-3] "Special stocks" means all stocks authorized by the Telephone Company other than or in excess of reasonable stocks.

7. Returned Materials.

The Electric Company will receive and classify any materials which the Telephone Company may return from time to time, delivered f. o. b. the Electric Company's distributing storerooms or other points designated by the Electric Company.

Such materials when received at the Electric Company's distributing storerooms shall be divided into classes: "A", "B", and "C" as defined below. Such classification shall be based on visual inspection by experienced storeroom employees and be subject to the approval of the Telephone Company. Such visual inspection is the only inspection contemplated in the rates of remuneration specified in paragraph 4 Article II of this Agreement. Any electrical or mechanical inspection required by the Telephone Company on materials classified "C" by visual inspection, shall be considered as part of the repair work and performed under the terms of paragraph 6 (b) Article II of this Agreement.

Class "A".—Surplus used returned materials not presently required by the Telephone Company for its own use, for which the Electric Company has allowance prices and which can be repaired and sold by the Electric Company to other Bell System Companies shall be classified "A." The Electric Company will purchase such materials from the Telephone Company.

Class "B".—Returned materials which have no value except as junk shall be classified "B". Such materials shall, at the option of the Telephone Company, be shipped

to the Electric Company's reclamation plants, or sold by the Electric Company. If advantageous for their economi-
[fol. 407-4] cal disposition such materials shall be dismantled by the Electric Company at its distributing storerooms.

Class "C".—All other returned materials shall be classified "C". The Electric Company will credit the Telephone Company for store, insure and carry the investment in such materials until reissued to the Telephone Company on its orders, or otherwise disposed of with its approval. For insurance purposes, Class "C" materials shall be valued at fifty per cent (50%) of current value new and shall be insured by the Electric Company in accordance with its current insurance practice.

8. Transportation Charges.

The Electric Company as authorized by the Telephone Company and in so far as practical will pay for the account of the Telephone Company such of the following transportation charges as under the Electric Company's prices and terms should be borne by the Telephone Company:

(a) On shipments of materials made hereunder to the Telephone Company.

(b) On shipments of materials returned from the Telephone Company to the Electric Company's distributing storerooms or other points designated by it.

(c) On shipments of Class "B" returned materials from the Electric Company's distributing storerooms to its reclamation plants or other points of disposition designated by the Electric Company.

The Electric Company will adjust claims with carriers arising out of shipments hereunder.

[fol. 407-5] 9. Repairs to Materials.

The Electric Company will maintain repair shops as at present established or at such points as from time to time may be agreed upon and will make such repairs to returned

materials as the Telephone Company may reasonably require.

10. Other Services.

The Electric Company will perform such other services as the Telephone Company may reasonably require from time to time.

Article II

Prices and Terms

1. General.

The Electric Company's prices and terms shall be as low as to its most favored customers for like materials and services under comparable conditions.

2. Materials, Equipment Specifications and Installations.

The prices to be paid by the Telephone Company to the Electric Company for materials, equipment specifications and installations shall be those established from time to time by the Electric Company. Such prices in so far as practicable and any conditions affecting them not specifically provided for in this Article shall be included in the Electric Company's published price lists. Prices for materials shall include inspection provided for in paragraph 3 Article I of this Agreement.

[fol. 407-6] 3. Carrying Special Stocks of Materials.

For carrying special stocks of materials the Telephone Company will pay the Electric Company monthly at the rate of eight per cent (8%) per annum on its average monthly investment in such stocks, beginning thirty (30) days after such materials have been placed in special stock.

4. Returned Materials.

Class "A" materials shall be credited to the Telephone Company at the Electric Company's allowance prices.

Class "B" materials which are shipped to the Electric Company's reclamation plants shall be credited to the Telephone Company at the Electric Company's allowance prices.

The allowance prices referred to above for Classes "A" and "B" materials shall be those established from time to

time by the Electric Company. Such allowance prices in so far as practicable and any conditions affecting them not specifically provided for in this Article shall be included in the Electric Company's published price lists.

Class "B" materials which are not shipped to the Electric Company's reclamation plants shall be credited to the Telephone Company at the prices realized by the Electric Company from their sale, less remuneration for its services, other than dismantling, as follows:

Seven per cent (7%) of the amounts received by the Electric Company before deduction of transportation charges, where deliveries are made to the Electric Company's distributing storerooms.

One per cent (1%) of the amounts received by the Electric Company, before deduction of transportation charges, where deliveries are made direct to a destination designated by the Electric Company, other than its distributing storerooms.

[fol. 407-7] In case Class "B" materials are dismantled by the Electric Company at its distributing storerooms, the Telephone Company will pay the Electric Company its costs of such dismantling, determined in accordance with paragraph 6(b) of this Article.

Class "C" materials shall be credited to the Telephone Company at the Electric Company's current prices for corresponding new materials, except that major units of central office and multiple private branch exchange switchboards may be credited at valuations mutually agreed upon. When reissued all Class "C" materials shall be paid for by the Telephone Company at the prices at which credited.

The Telephone Company will pay the Electric Company for its services in connection with materials credited as Class "C" three and one-half per cent (3½%) of the amounts so credited and interest at a reasonable rate upon its investment in such materials; such interest to be billed monthly.

In case Class "C" materials are damaged or destroyed by fire, the Telephone Company will reimburse the Electric Company for the difference between the amounts recovered by the Electric Company on account of insurance carried and the amounts which were credited to the Telephone Company for such materials, and in addition, for any unbilled repairs to such materials.

5. Transportation Charges.

The Telephone Company will reimburse the Electric Company for transportation charges paid by it as provided for in paragraph 8 Article I of this Agreement.

[fol. 407-8] 6. Repairs to Materials.

The Telephone Company will pay the Electric Company for repairs provided for in paragraph 9, Article I of this Agreement as follows:

(a) At established prices which shall be agreed upon from time to time in so far as practicable and in effect on date repairs are billed to the Telephone Company.

(b) For repairs not covered by established prices, at the Electric Company's costs thereof determined as follows:

Materials: At prices prescribed in paragraph 2 of this Article.

Direct Labor: At actual cost.

Indirect Labor, Local and General Expense: At rates applied to direct labor, which rates shall be agreed upon from time to time and shall be sufficient to cover such indirect labor and expense applicable to the operation of such distributing storeroom shops.

Interest on Investment: At a reasonable rate on the Electric Company's investment required to make such repairs.

7. Other Services.

The Telephone Company will pay the Electric Company for other services as provided for in paragraph 10, Article I of this Agreement as follows:

(a) At established prices which shall be agreed upon from time to time in so far as practicable.

(b) For such services not covered by established prices, [fol. 407-9] at the Electric Company's costs thereof determined as follows:

Materials: At prices provided for in paragraph 2 of this Article.

Direct Labor: At actual cost.

Local and General Supervision: At twenty-five per cent (25%) of direct labor.

Expense Items: At actual cost.

Interest on Investment: At a reasonable rate on the Electric Company's investment required to perform such services.

8. Payment.

As of the first of every month the Electric Company will render monthly statements of account which shall be due and payable by the Telephone Company thirty days after date of such monthly statements. If payment is deferred, the account shall thereafter bear interest at a reasonable rate.

Article III

General Provisions

1. Liability.

(a) The Electric Company shall be liable only for direct damages arising from failure to exercise reasonable care and diligence in performing its obligations hereunder.

(b) If any materials manufactured by the Electric Company shall prove to be defective or if any materials furnished by the Electric Company and inspected as provided for in paragraph 3 Article I of this Agreement shall prove to be not in accordance with the specifications, the Electric Company, at the option of the Telephone Company, will accept the return of such materials and allow full credit [fol. 407-10] therefor or replace the same at its own expense f. o. b. destination of the original shipment to the Telephone Company.

(c) In case the Telephone Company shall decide to abandon or reduce the use of or purchase from others any materials not of Electric Company manufacture or materials of Electric Company manufacture not standardized by the American Telephone and Telegraph Company, theretofore customarily purchased from the Electric Company, it will give the Electric Company reasonable notice of such intention and will reimburse the Electric Company for any loss on account of any reasonable stocks thereof on hand and any reasonable commitments made by the Electric Company prior to the receipt of such notice in anticipation of the Telephone Company's orders.

2. Cancellation of Prior Agreement.

This Agreement as of the date it becomes effective supersedes the Agreement between the parties hereto dated January 1, 1924, entitled "Standard Supply Contract" and all Agreements supplementary thereto.

3. Term of Agreement.

This Agreement shall become effective on the second day of June 1930, and shall continue in force until terminated by mutual consent or by one year's notice in writing from either party to the other, or by the termination of the license from the American Telephone and Telegraph Company to the Telephone Company or to the Electric Company.

[fol. 407-11] In witness whereof the parties hereto have caused this Agreement to be executed by their respective officers thereunto duly authorized and their corporate seals to be hereunto affixed the day and year first above written.

Western Electric Company, Incorporated, by ——, President. Attest: —— ——, Secretary.

Wisconsin Telephone Company, by —— ——, President. Attest: —— ——, Secretary.

[fol. 408] In United States District Court

[Title omitted]

Supplementary Affidavit of R. H. Gregory

State of New York,
County of New York, ss:

R. H. Gregory, being first duly sworn, on oath says:

On September 13, 1932 I made an affidavit in the above entitled action consisting of seven typewritten pages and five exhibits—A, B, C, D and E.

Beginning in 1921 Western Electric made a series of general reductions in its prices on apparatus and equipment aggregating approximately 40% by 1930, and in [fol. 409] November 1930 it made a general increase by approximately 9% on its previously reduced prices. Its

factory output has been decreasing steadily since 1930, but there has been no general increase in prices since that date.

If all the sales of telephone apparatus and equipment ($143,000,000) made by Western Electric to its Bell customers in the year 1930 had been at the price level of 1921, the price of such telephone apparatus and equipment would have been $97,000,000, or approximately 68%, more than it was.

From 1921 to 1930 there were substantial reductions in prices of materials entering into such telephone apparatus and equipment which were, however, more than offset by increased labor costs, so that all the savings to the Bell customers of Western Electric resulting from the reductions in prices referred to have been due to increased efficiency of Western Electric's manufacturing operations.

(Signed) R. H. Gregory.

Subscribed and sworn to before me this 14th day of September, 1932. Commission expires March 30, 1934. Kings Co. Clerk's No. 105, Reg. No. 4106. New York Co. Clerk's No. 224, Reg. No. 4A126. (Signed) Harry Anisansel, Notary Public. (Seal.)

[fols. 410 & 411] In United States District Court

[Title omitted]

Reply Affidavits of John H. Bickley, Asel R. Colbert, Cyrus G. Hill, and George W. Cummings in Opposition to the Application for an Interlocutory Injunction—Filed Sept. 16, 1932

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Dated Madison, Wisconsin, September 15, 1932.

[fol. 412] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF JOHN H. BICKLEY

STATE OF WISCONSIN,
Dane County, ss:

John H. Bickley, being duly sworn, on oath deposes and says:

I am the same John H. Bickley who made an affidavit verified the 16th day of August, 1932, and am Chief Accountant of the Public Service Commission of Wisconsin.

I have read the affidavit of Edward A. Fritz, General Auditor for the complainant, that of George F. Crowell, Chief Engineer for complainant, and that of Maynard A. Cook, all verified September 6, 1932.

Claim of E. A. Fritz for Property Used and Useful for Furnishing Telephone Service

In his affidavit, verified September 6, 1932, Mr. E. A. Fritz states:

[fol. 413] From the books of account of the complainant I have determined the average investment of the complainant during the first six months of the year 1932 in complainant's *property used and useful* for furnishing the exchange service covered by its exchange rates and also in complainant's *property used and useful* for furnishing its entire telephone service; and from the said data and by detailed studies and computations, as hereinafter more particularly described, I have determined the complainant's average investment during the same period, *used and useful* for furnishing intrastate exchange service and entire intrastate telephone service, respectively. (Italics mine.)

The foregoing statement is erroneous. The books of account do not report the property used and useful for furnishing telephone service. The books of account are supposed to represent the cost of property. They do not show the extent to which the property is used or its usefulness.

If any inferences may be drawn from the books of account, they appear to evidence that on July 1, 1932, the

complainant had more property than was necessary for rendering adequate service to the present subscribers. This is indicated by the following:

1. On January 31, 1929, the complainant had 341,027 stations in service. On July 31, 1932, it had 341,104 stations. January 31, 1929, has been used as a comparative date because at that time the number of stations was substantially the same as at July 31, 1932.

2. On January 31, 1929, the gross book amount of the complainant's investment in fixed capital (plant and equipment) was $54,648,261.18. On July 31, 1932, it was $76,362,827.34.

3. Thus, although the number of stations increased only 77, or 2/100ths of 1 per cent, from January 31, 1929, to July 31, 1932, the gross book investment in plant and equipment increased $21,714,566.16, or 39.7 per cent.

4. The increase in investment for the same number of stations may have been due in part to the substitution of more costly property for less costly and to the installation of superior property. It was caused also by the installation of additional plant.

[fol. 414] Materials and Supplies

The complainant's chief engineer, George F. Crowell, in his affidavit of September 6, 1932, included in his estimate of value of the property an allowance of $436,813 for materials and supplies. This was divided between exchange and toll as follows:

Exchange	$320,577
Toll	116,236
Total	$436,813

The amount was based upon the amount of materials and supplies recorded in the books of account on June 30, 1932, although it is recognized that $85,766 of this amount represented "equipment recently retired from service and carried at salvage values and a portion amounting to $113,100 represents motor vehicle equipment in storage". Crowell continues: "The remainder of the investment is in supplies

currently and continuously purchased and used and the book value thereof corresponds very closely to present reproduction cost. The amount of investment in said current supplies is only the amount normally required for routine construction and maintenance work."

In his affidavit, verified July 27, 1932, Crowell claimed $339,119 for materials and supplies for the year ended December 31, 1931. This was likewise based upon the book cost of materials and supplies. In 1931, the volume of business conducted by the complainant was in excess of that being enjoyed currently. The maintenance and construction expenditures exceeded those being made currently. In spite of the smaller business, maintenance and construction, Mr. Crowell claims more materials and supplies as the "amount normally required for routine construction and maintenance work".

After the exclusion from the materials and supplies on hand, at July 1, 1932, of the two items of $85,766 and $113,100, a total of $198,866, the materials and supplies are reduced to $237,947.

[fol. 415] Working Capital

Complainant's chief engineer estimated working capital at 1 per cent of the gross book investment in plant and equipment at July 1, 1932. The amounts thus found were:

For exchange	$561,148
For toll	203,462
Total	$764,610

The materials and supplies are an element of working capital. Any additional claim is for cash working capital. At June 30, 1932, the complainant had cash and deposits of $169,715.51. During the year 1931, the average of cash and deposits was $257,938. This is a reasonable allowance for cash working capital.

In financial practice, working capital, in all forms, is measured as the excess of current or working assets (including cash, materials and supplies, accounts and notes receivable) over the current or working liabilities. The accounts and notes receivable of complainant at June 30, 1932, were $1,623,499.37. The accounts and bills payable

(exclusive of $4,575,000 owed to American Telephone and Telegraph Company) were $3,744,428.17. This shows an excess of current liabilities over current assets. The notes payable of $2,206,104.87 were owed to the Bankers Trust Company as trustee for the employees' pension fund. The comparison of working assets and working liabilities, as of June 30, 1932, is shown by the following summary:

Working Assets:		
Cash and deposits	$169,715.51	
Marketable securities	6,194.60	
Bills receivable	74,505.74	
Accounts receivable	1,548,993.63	
Materials and supplies	436,813.14	
Total working assets		$2,236,222.62
[fol. 416] Working Liabilities:		
Bills payable	$2,206,104.87	
Accounts payable	1,538,323.30	
Total working liabilities		3,744,428.17
Excess of working liabilities over assets		$1,508,205.55

In addition to the bills and accounts payable of $3,744,428.17, there were accrued liabilities not due of $1,834,804.44, on June 30 1932. These included $791,786 of Wisconsin State Income Taxes which are being disputed by complainant. The accrued liabilities not due are eliminated from the consideration of working capital. If they were included, there would be a larger excess of working liabilities over working assets. That is, there would be a larger negative working capital.

Included in working assets are items which are not to be considered as working capital. No adjustment is made for this fact.

When the bills payable, representing notes held by the pension trustee, are deducted from the working liabilities, above, there is shown an excess of working assets over working liabilities of $697,899.32. When the materials and

supplies of $198,866, referred to in connection with that item, are deducted from the total materials and supplies, the net working assets of $697,899.32 are reduced to $499,033.32. This is $3,148 more than the sum of the cash working capital and materials and supplies ($495,885) as above measured.

During a period of ten years, from December 31, 1922, to December 31, 1931, the property, operations, and revenues of complainant were growing rapidly. Nevertheless, its maximum working capital at the close of any year was not in excess of $697,899 (the amount at December 31, 1931), exclusive of notes payable to the pension fund trustee.

In his affidavit, verified September 6, 1932, Maynard A. Cook, of Sloan and Cook, Consulting Engineers, found that [fol. 417] a proper allowance for working capital and materials and supplies on July 1, 1932, would be $1,480,000, as compared to an amount of $1,201,423 determined by George F. Crowell, the complainant's chief engineer. In support of his finding Cook states: "One method which is frequently used is to determine a reasonable allowance for materials and supplies based upon the Company's experience requirements, together with the amount necessary to cover operating expenses for a six weeks' period." As shown by the previous summary, the working assets of complainant, as shown by its records on June 30, 1932, were, at the most, only $697,899.32 in excess of the working liabilities. That is, the actual maximum working capital was only this amount. During the first six months of 1932 and many years prior thereto, complainant was able to conduct its business advantageously to itself and to maintain current credit.

Complainant renders bills to its exchange subscribers, for the major portion of exchange service revenue, one month in advance of service. If a subscriber pays his bill within 15 days, he is allowed a discount. On the other hand, the costs of operation, such as for labor and materials, are paid subsequent to the employment of the labor and the receipt of materials. Since the exchange revenues with which exchange expenses are paid are collected prior to the time labor and materials are paid, a comparatively small amount of working capital is required for the purposes of the exchange business.

Going Value

In his affidavit, Mr. George F. Crowell, chief engineer of complainant, includes "going value" in his determination of the value, as of July 1, 1932, of the property of complainant used and useful in telephone service. Going value was computed at 10 per cent of the reproduction cost, on July 31, 1932, of the physical property as determined by Crowell. In support of the estimate of going value, it is said:

[fol. 418] "I have, from my own knowledge and experience, considered the expenditure which would be incurred by a telephone utility under the most favorable conditions in reproducing its property, in building up the operating and maintenance organization, establishing routines, practices, and forms, acquiring subscribers, and in meeting fixed charges and operating costs on plant ready for service in excess of the revenue derived therefrom at reasonable and compensatory rates up to the time the business would be established. In determining and using this rate of 10% as going value, I have also considered the usual and customary engineering practices and my knowledge that in engineering valuations of telephone plants higher percentages have been used by qualified engineers in determining the item of going value."

The cost of reproducing the physical property has been considered by Crowell in his reproduction cost estimates. The factors on which his estimate of going value is based are:

(a) Building up the operating and maintenance organization.

(b) Establishing routines, practices, and forms.

(c) Acquiring customers.

(d) Meeting fixed charges and operating costs on plant ready for service in excess of the revenue derived therefrom at reasonable and compensatory rates up to the time the business would be established.

(e) Percentages in excess of 10 per cent have been used by qualified engineers in determining going value.

The first three factors, enumerated above, are currently, and for many, and probably all, years have been, charged by the complainant as an operating expense. It has been fully paid for these expenses by its patrons. Any expenditures incurred in building up the operating and maintenance organization have been included in its various operating expenses. For example, during the eight years from 1924 to 1931, the complainant has charged against its patrons, as an operating cost, expenses of $805,706 for the training of operators in the traffic department.

[fol. 419] The costs of establishing routines, practices and forms have all been included in operating expenses and thereby charged against patrons.

The cost of acquiring customers has likewise been charged as an operating expense and thereby charged against patrons. For example, during the eight years 1924 to 1931, inclusive, the complainant charged as commercial expenses a total of $1,118,367 for advertising and canvassing.

The complainant has incurred no expenditures in meeting fixed charges and operating costs on plant ready for service in excess of the revenue derived. The complainant has earned its fixed charges and operating costs at all times.

Furthermore, the complainant has made contributions to various charitable and other institutions. These have been charged against patrons as a part of the operating expenses of complainant.

Qualified engineers in other Bell Telephone Company cases have testified that going value was substantially less than 10 per cent.

The complainant's revenues have always exceeded its operating expenses, including taxes and depreciation, and have been sufficient to pay all fixed charges and have yielded a return on the property and on the capital stock. The claim for going value based upon a possible failure to earn in past years a reasonable return on property, is a means whereby the complainant would be compensated for failure in the past to earn a certain return. The value of the property today would thereby be measured, in part, by past shortages with respect to a certain return. Under this theory, the larger this shortage, the greater would be

the present value. If the business had been operated at a loss (excess of expenses and fixed charges over revenues) the value would be even greater.

Maynard A. Cook, in his affidavit of September 6, 1932, says with reference to going value:

"I consider that a minimum measure for going value would be the cost of establishing the business of a company and should include the amount required for carrying [fol. 420] charges, covering interest, depreciation and maintenance, on plant completed and ready for service in excess of that plant required for subscribers, which can be immediately attached on completion, and also the amount required for training operators and other personnel, for production of the first directory, assuming the receipt of some advertising revenues, the preparation and designing of forms, records and methods, and the operating expenses over the normal expenses during the period required for acquiring the number of subscribers which the plant is designed to serve. For going value as thus defined, studies in other cases have indicated that such costs equal 9% to 15% of the reproduction cost new of physical property."

The Cook theory is identical with the Crowell in that the estimate of going value is based, in part, upon the capitalization of certain expenses which the complainant in fact charges against its patrons as operating costs. These are the training of operators and other personnel, the production of the first directories, and the preparation and designing of forms, records and methods. It capitalizes other operating expenses, namely, the operating expenses over normal expenses. In effect, the Cook theory, like the Crowell, leads to the capitalization of assumed early losses, or amounts less than a reasonable return, as a measure of present value.

Other features of the Cook method are contrary to fact. Such maintenance as described on unused plant would be small. If depreciation is accrued on property prior to its installation in service, the depreciation to be charged during the useful life of the property is reduced. Complainant estimates and fixes its depreciation rates on the basis of service life and during such life expects to recover the en-

tire cost of the property. It assumes, in other words, that when new property is installed, it is in 100 per cent condition.

Deduction for Depreciation

In his estimate of the reproduction cost new less depreciation of the telephone plant and equipment, as of July 1, [fol. 421] 1932, Mr. Crowell deducts only $5,527,389, or 7.3 per cent, from the estimated reproduction cost new of $75,628,658 for the total of exchange and toll plant and equipment, as follows:

	Total	Exchange	Toll
Reproduction cost new	$75,628,658	$55,652,665	$19,975,993
Less—Depreciation	5,527,389	4,400,470	1,126,919
Reproduction cost new less depreciation	$70,101,269	$51,252,195	$18,849,074

On June 30, 1932, the depreciation of the telephone plant and equipment of complainant was shown by its books of account as being $17,139,879.76, or 22.4 per cent of the gross book value of fixed capital. The gross book value of total plant and equipment at the same date was $76,461,-037.65 and the depreciated book investment was thereby $59,321,157.89 for both exchange and toll property. The depreciation reserve of the complainant represents the extent to which its patrons have reimbursed it for its estimate of the consumption of the service capacity of property, casualty losses and extraordinary repairs resulting from casualty losses. Since January 1, 1913, the extraordinary repairs resulting from casualty losses have exceeded the provision made in the reserve for such repairs. Consequently, at July 1, 1932, the reserve for depreciation and for casualty losses is less than it would be if such repairs had been provided for in a separate reserve.

John H. Bickley.

Subscribed and sworn to before me this 15th day of September, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 422] IN UNITED STATES DISTRICT COURT

[Title omitted]

AFFIDAVIT OF ASEL R. COLBERT

STATE OF WISCONSIN,
County of Dane, ss:

Asel R. Colbert, being duly sworn, deposes and says:

I am the same Asel R. Colbert who made an affidavit in this case under date of August 16, 1932, and whose qualifications were therein stated.

I have read the affidavit of George F. Crowell, chief engineer of the Wisconsin Telephone Company, dated September 6, 1932, with particular reference to that portion of said affidavit beginning on page 19 thereof and continuing through page 22.

In page 20 of Crowell's affidavit it is stated that the turnover method is "not a correct method to use for this class of property (manual central office equipment) of complainant." The affidavit implies that the depreciation rate of 5.7 per cent per annum for manual central office equip-
[fol. 423] ment, which was adopted by the Commission in its order of June 30, 1932, was erroneous because it was the same rate which the Wisconsin Company had previously developed by a turnover study. This is evidenced by the fact that the affidavit states that "It (the turnover method) has not been used in the determination of the rates of depreciation used by the complainant in 1931 or 1932 for this class of equipment, but was used in the determination of complainant's earlier rate which the said Commission has substituted therefor."

The rate of 5.7 per cent per annum is not wrong simply because it was originally developed by the Company from a turnover study. Nor, do I believe, from the language of the Commission's order of June 30, 1932, that it was adopted because originally developed from a turnover study. The order states, at page 54, that "Due consideration being given to the evidence presented in the case, it is found that no increase in the rate of depreciation of ex-

change manual central office equipment over that used by the Company from 1921 to 1930, inclusive, is necessary. Accordingly, depreciation expense on this class of property has been computed at 5.7%, this rate being applied to the total of exchange manual central office telephone equipment and exchange other equipment of central offices."

In my affidavit of August 16, 1932, I presented, in page 4 thereof, seven reasons why I believe a rate of 7.5 per cent per annum is too high and that a rate of 5.7 per cent per annum is adequate for the present exchange manual central office equipment of the Wisconsin Company. I again affirm those reasons.

In my affidavit of August 16, 1932, I listed, on page 5 thereof, seven reasons why a depreciation rate of 5 per cent per annum, the rate used by the Company in 1931, was too high and 3.2 per cent per annum, the rate allowed by the Commission in its order of June 30, 1932, was adequate for depreciation of station apparatus. I again affirm those reasons.

One of the factors entering into the development of a [fol. 424] depreciation rate for station apparatus is the salvage recovery thereon. In its order of June 30, 1932, the Commission estimated salvage of 76 per cent on station apparatus. The actual experience of the Company from 1913 to 1931 was 84 per cent, and from 1927 to 1931, it was 85 per cent.

In this connection, it should be noted that during the eleven-year period from 1921 to 1931, inclusive, the salvage on station apparatus actually realized by the Company was about $835,000 more than the estimates used in computing the depreciation expense. This means that there existed in the reserve as of the close of 1931, a minimum of $835,000 consisting of the amount by which the salvage recovery exceeded the Company's estimates. This is equivalent to 17.25 per cent of the ledger value of station apparatus which amounted to $4,839,833 as of December 31, 1931. This supports the conclusion that the salvage estimates of the Company on station apparatus have been too low and that the estimate of 76 per cent shown in the Commission's order of June 30, 1932, is reasonable.

What has been said of the salvage recovery on station apparatus applies in general to private branch exchanges and booths and special fittings. That is, the salvage

actually recovered has been greatly in excess of the present estimates of the Company. For the reasons stated in my affidavit of August 16, 1932, I believe the salvage estimates and the depreciation rates for private branch exchanges and booths and special fittings used in the Commission's order of June 30, 1932, are reasonable.

Asel R. Colbert.

Subscribed and sworn to before me this 12th day of September, 1932. My commission expires August 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 425] In United States District Court

[Title omitted]

Affidavit of Cyrus G. Hill

State of Wisconsin,
County of Dane, ss:

Cyrus G. Hill, being duly sworn, deposes and says that he is Special Utilities Engineer of the Public Service Commission of Wisconsin, that he is the same Cyrus G. Hill who made an affidavit herein, verified the 16th day of August, 1932.

He has read affidavit of George F. Crowell, subscribed and sworn to by him September 6th, 1932.

In second paragraph Crowell states as follows:

"In determining the said valuation as of July 1, 1932, I have repriced the quantities of said property owned by the complainant on January 1, 1932, using prices of July 1, 1932, and have added thereto the amount of complainant's net additions to investment in property made between the said two dates. If I had included the additions made dur-
[fol. 426] ing said period at their cost, and subtracted displacements at July 1, 1932, reproduction cost prices (being the prices at which they were included) the resulting valuation of complainant's total plant and equipment as of July 1, 1932, would be higher than the valuation determined by the method used by me as hereinbefore described"

This statement can be true only if the July 1, 1932, reproduction cost is lower than the corresponding book cost. Remembering that book net additions are equal to gross additions (which are at reproduction cost level) minus retirements (at average original or book cost level), it is obvious that book net additions can be less than gross additions minus retirements priced at reproduction cost level, only if the retirements at book cost level are greater than the same retirements converted to reproduction cost level. Crowell's statement therefore verifies the correctness of Wray's affidavit in which he stated that reproduction cost at current prices is not higher than book cost.

Crowell's said statement in the second paragraph of his affidavit is inconsistent with the figures shown on Exhibit G. E. C. No. 1 attached to said affidavit wherein Crowell alleges the total Book Cost (or Book Value) as of July 1, 1932, to be $77,662,461 and the total reproduction cost as of the same date to be $84,392,947. The latter figure is incorrect as will hereinafter be shown.

On page 4 of said affidavit, Crowell says:

"In making the valuation of complainant's plant and equipment, I have taken as the quantities of each item of property the amount shown on the complainant's plant measurement records as of December 31, 1931, except for land, buildings, and central office equipment and for some other classes of property where the book values of the plant have been used as reproduction costs as hereinafter specifically stated."

The plant measurement record is not a correct and reliable source of information as to quantities of each item [fol. 427] of plant actually in service. The only reliable basis for determining cost of reproduction of a telephone property is a complete field inventory of the plant.

It is true, as stated by Crowell, that partial inventories of the property in certain exchanges have been made by the Engineering Department. These inventories are in the form of tables for poles and maps for aerial and underground cable and underground conduit. Neither the tables nor the maps show any totals or summaries of the quantities of various items, and this affiant or his assistants have been informed that no summaries of the engineering records

have been made by the Company. This affiant or his assistants have likewise been informed that, except possibly in minor instances, the plant measurement records have not been corrected by the Company to conform to the engineering records, and this information is supported and verified by this affiant's study of the plant measurement and engineering records, which has extended over a period of several weeks. Said study has consisted in summarizing the engineering records for certain exchanges selected at random and comparing them with the plant measurement record, the numbers of items shown by both records being priced at retirement unit costs (book cost level) for the purpose of quantitive comparison. Large discrepancies between the two records have been found in practically every case studied and said discrepancies have not been adjusted except in one case where an unusually large difference was called to the Company's attention, the source of error in the plant measurement ascertained, and the mistake corrected.

In the above case the error in the plant measurement record was the result of duplicating the entries for underground conduit construction under Estimate No. 31101 at Stoughton. The first entries were made in December, 1931, at the time the work was completed and the estimate closed. Subsequently, in February, 1932, a check of the work was made by the Engineering Department and the measurements of the conduit placed under this estimate were again entered in the Plant Measurement Record. As a result the Plant Measurement Record was 70% too large.

[fol. 428] Out of a total of 96 exchanges, engineering records representing fairly recent inspection of poles, conduit and cable have been compiled for 34 exchanges. Of these 34 exchanges comparisons of engineering and plant measurement records have so far been made of aerial cable in 6 exchanges, underground conduit in 5 exchanges, and underground cable in 4 exchanges chosen at random, with the following results:

Engineering Records

Exchange	(From measurements in the field) (1)	Plant measurement record (books) (2)	Percentage excess of (2) over (1)
Exchange Aerial Cable, Acct. No. 242			
Racine	$147,210	$172,859	17.42%
Mayville	16,393	18,057	10.15%
Stoughton	10,561	10,938	3.57%
Watertown	24,990	26,257	5.07%
Waukesha	50,409	51,793	2.75%
Port Washington	12,076	13,644	12.98%
Total	$261,639	$293,548	12.20%
Exchange Underground Conduit, Acct. No. 244			
Racine	$272,117	$321,500	11.81%
Mayville	2,579	3,014	16.87%
Watertown	36,489	36,387	(.28%)
Waukesha	54,800	40,520	(2.61%)
Stoughton	13,800	23,411	69.64%
Total	$379,785	$424,832	11.86%
Exchange Underground Cable, Acct. 245			
Racine	$280,544	$296,469	5.68%
Mayville	1,639	1,784	8.85%
Watertown	9,349	12,052	28.91%
Waukesha	32,280	33,975	5.25%
Total	$323,812	$344,280	6.32%

( ) = Negative quantity

[fol. 429] The plant measurement record shows total quantities of plant of each kind and size but does not indicate locations of units. Very large inaccuracies can therefore exist indefinitely without detection in the plant measurement record unless a check is made against a complete field count. The plant measurement record cannot be spot checked to determine its accuracy, because of the impossibility of identifying individual units.

Crowell states on page 7 of his affidavit that he used outside plant unit labor costs developed from Company experience in plant construction in 1927. Studies of labor hour rates and overhead charges made by this affiant indicate that present day costs of constructing the same plant in the same way would be at least as low as those of 1927. The work of reproducing the Company's entire property could, however, be carried out at substantially lower labor costs than the scattered construction work done in 1927.

Crowell's labor cost units apparently are based upon all construction work done in the year 1927 and there is no indication in his affidavit that any attempt was made to develop the cost of labor involved in large construction jobs only, such as would constitute the work of reproducting the entire property of the Company. Of a total of $6,087,036 of gross additions to plant in 1927, $4,184,004 were constructed under specific estimates and $1,903,032 under routine estimates, the former representing the larger jobs and the latter the small piecemeal construction. Experience of many companies has indicated that the labor costs incurred under specific estimates are at least 20% lower than labor costs on a combination of routine and specific estimates such as constitutes any year's actual construction. An analysis of the Wisconsin Telephone Company's aerial cable construction costs in 1927 shows that the total cost in place of identical plant units when constructed on small jobs represented by routine estimates was 60% higher than when placed on larger jobs represented by specific estimates.

Crowell properly recognized this difference between [fol. 430] wholesale and piecemeal construction costs in the case of central office equipment, where, referring to the Company's manual exchange central office equipment, he states at the end of paragraph 4, page 11, "The remainder of the said class of equipment was reduced in determining reproduction cost by 17% from the results of the indexing hereinbefore described, in order to adjust the costs to the conditions which would exist under a single project reproduction as distinguished from the serial production which existed in connection with these installations." As stated above, a minimum allowance for what Crowell terms single project reproduction as distinguished from serial production is, in the case of the outside plant and station equipment, 20% of the labor cost or about 9% of the total cost in place. This amounts to a reduction in Crowell's cost of reproduction of $4,284,200, giving a total of $67,063,578, excluding interest during construction.

Crowell computed interest during construction at 6% of the reproduction cost new of total plant and equipment. This estimate of interest during construction is excessive for a property such as that of the Wisconsin Telephone Company. The most careful and complete study of interest during construction of which this affiant has knowledge was

made by the New York Telephone Company in connection with the appraisal of their property in 1924. It was based upon analysis of the time that investment is tied up in large construction projects before they can be cut into service and become productive. These studies, the results of which are shown in detail in Exhibit C. G. H. No. 1, attached to and made a part of this affidavit, show that a maximun allowance for interest during construction is 4% of the cost of reproduction of the property, under conditions comparable with those of the Wisconsin Telephone Company. A maximum allowance for interest during construction is then $2,682,543, making a total cost of reproduction not to exceed $69,746,-121, before Working Capital, Going Value, and without any adjustment of the Company's estimate of material prices.

[fol. 431] Crowell admits in paragraph 10 of his affidavit that of $436,813 carried on the Company's books for Materials and Supplies as of July 1, 1932, approximately $200,000 represents retired and stored equipment. This amount should be excluded from the value of the property because not used or useful and not needed for the current operation of the property. The amount of materials and supplies stated by Crowell to be "normally required for routine construction and maintenance work" is $237,947. Of this amount, that devoted to construction should be eliminated.

If, for purposes of comparison only, the above amount be assumed for materials and supplies, cash working capital be taken at $258,000, said amount being taken from the affidavit of John H. Bickley as representative of the Company's actual experience, and Going Value be added on the Company's basis of 10% of reproduction cost, the total Reproduction Cost as of July 1, 1932 (based on Crowell's figures modified as above indicated) is:

Plant and Equipment	$67,063,578
Interest During Construction	2,682,543
Materials and Supplies	237,947
Cash Working Capital	258,000
Going Value	6,974,612
Total	$77,216,680

This amount is approximately $500,000 less than the book cost on the same date. No reduction has been made in the above reproduction cost for the substantial excess of the

quantities of plant taken by Crowell from the Plant Measurement Record over the quantities of plant actually in place, which excess is clearly indicated by checks already completed. Nor has any deduction been made for plant constructed for and used by the American Telephone and Telegraph Company and properly chargeable to that Company, the substantial amount of which has been shown by studies already completed for certain exchanges, as detailed in the affidavit of this affiant verified August 16th, 1932, in this case.

[fol. 432] In the affidavit of K. Lee Hyder, dated September 6th, 1932, relating to valuation of buildings, he states, "The valuations do not reflect the distressed conditions in the building industry at the date of valuation which have resulted, temporarily I believe, in a reduction in actual labor rates below the normal scale and in many instances the virtual elimination of contractor's profit."

A similar distressed condition exists in the market for telephone construction labor, many experienced telephone men being out of employment. This condition with attendant possible reductions in wage rates below the standard scale and corresponding reductions in construction labor costs are not reflected in any way in the above reproduction cost.

Attached to the affidavit of E. V. Cox, dated August 11th, 1932, as Exhibit D, is a statement of "Index Numbers of the Cost of Central Office Equipment Installed," said index numbers being the ones used by Crowell in his estimate of the cost of reproduction of Central Office Equipment, as stated on page 10 of his affidavit. These index numbers cannot correctly be applied to the property of the Wisconsin Telephone Company for reasons set forth in the affidavit of G. W. Cummings, verified September 14, 1932. The equipment represented by the said index numbers is all manufactured by the Western Electric Company and is supplied to the Bell operating companies, including the Wisconsin Telephone Company, without competition at prices fixed by the Western Electric Company. In the face of rapidly declining prices of materials entering into the manufacture of this equipment, and decreasing factory labor costs during the period from Jan. 1, 1930 to January 1, 1932 (See chart attached to Affidavit of G. W. Cummings, dated Aug. 15, 1932), the said index numbers of Cox show

that the Western Electric Company increased the prices of its manual and dial central office equipment by over 13%. If this increase in Western Electric prices be considered arbitrary, in the face of the practically universal decline in prices of all commodities and manufactured articles, and be [fol. 433] disallowed for purposes of valuation of existing property, the reproduction cost of Central Office Equipment of the Wisconsin Telephone Company, as estimated by Crowell, will be decreased by over $1,350,000.

After making this adjustment in Crowell's cost of reproduction of Central Office Equipment the Total Cost of Reproduction including Going Value and Working Capital, based upon Crowell's estimates, modified as above described, as of July 1, 1932, is $75,672,280. This figure is in excess of the true cost of reproduction for the reasons above described, but the amount of such excess is not ascertainable from data now available.

Based on the above estimate of reproduction cost of the total property, the cost of reproducing the portion of the exchange property devoted to local use as of July 1, 1932, is not in excess of $49,850,000, and the reproduction cost, less depreciation reserve, of said local property, including going value and working capital is not more than $38,000,000.

This affiant has read the affidavit of Fred E. Chandler, subscribed and sworn to by him September 6, 1932.

Chandler states, on page 3 of that affidavit, as follows:

"I determined the relation of the use of plant and equipment and other capital assets and the utilization of materials and labor and services and other items constituting operating expenses in interstate toll service of the complainant with respect to the entire toll service."

On page 4 he states as follows:

"I had available a record taken on twenty representative business days in 1931 of every toll message passing over the toll lines of the complainant or handled through the switchboards of the complainant. This study showed the number of toll messages and the number of circuit miles of the complainant's toll line employed on each message."

[fol. 434] The toll lines of the complainant used for transmitting both interstate and intrastate toll messages are

comprised of at least six major types of circuits: (1) pole lines carrying bare iron wire circuits; (2) pole lines carrying bare copper circuits; (3) pole lines carrying aerial cables containing various types and sizes of circuits; (4) underground cables containing various types and sizes of circuits, all of which are encased in underground conduits; (5) submarine cables containing various types and sizes of circuits, and (6) carrier arrangements that permit a multiplicity of messages to be transmitted simultaneously over each pair of wires. The costs per circuit mile of these different kinds of circuits vary widely. The proportion of interstate toll messages of total messages is different for each of the types of circuits referred to above. A correct apportionment between interstate and intrastate toll services of the book cost or reproduction cost of toll line plant could not be made without taking into consideration the varying use for interstate toll services of the different types of circuits enumerated above. Chandler did not give this any weight in the development of the interstate Message-Mile percentage of 20.66 shown on page 5 of his affidavit.

Chandler states, on page 4, as follows:

"The results of this study (record taken of twenty representative business days) are representative of traffic conditions and the relation of relative mileage of interstate and intrastate messages in the year 1931."

I am familiar with the record of toll business referred to by Chandler and know that it purports to show the use of various circuit groups on twenty business days during the month of July, 1931. I have studied the flow of toll traffic handled by numerous Bell Companies and have found that the traffic handled during the month of July or any single month was not representative of the total year's traffic. I have also learned from these studies that there is a seasonal effect on the relative use of plant and equipment for [fol. 435] interstate services. I have found these conditions to exist with respect to the toll traffic handled at the Madison exchange of the complainant, and similar studies of toll traffic in other exchanges of the Wisconsin Telephone Company are in progress.

Chandler states, on page 4, as follows:

"As the records and experience of the complainant's Traffic Department show that the amount of time that the

speaking parties use the toll lines plus the time that the operators use the toll lines on interstate toll messages is greater than the average use of the toll line on all mes-ages, I employed a modifying factor reflecting the difference in length of time of toll line use per message. This modifying factor is based on my own knowledge and experience verified by experience of other Bell System Companies."

The time in use per toll message varies greatly with differences in methods of operation, types of calls, length of haul, and with the class of subscriber originating the call. The average holding time per interstate toll message and intrastate toll message varies widely in different localities and different companies. For these reasons a study of actual holding time of the complainant's own toll traffic is essential to a correct apportionment of the toll plant and equipment to interstate and intrastate use.

Crowell states on page 18 of his affidavit, dated September 6th, 1932, that the Company's preventive maintenance work became effective in 1929 and 1930, and that "definite and measurable improvement in reducing the number of telephone troubles per station in a given period has been realized." Preventive maintenance is one of the important factors in the large increase in the Company's operating expenses in recent years. Crowell refers to Exhibit G. F. C. No. 3 attached to his affidavit, which indicates some decrease in the troubles cleared per 100 stations in 1930 and 1931. Troubles cleared are not as good a measure of the quality of service as are Subscribers' Trouble Reports. Subscribers' Trouble Reports per 100 stations increased violently in 1930 and in 1931 were still far above the average [fol. 436] for the years 1926 to 1929, the period before preventive maintenance was well established. The figures by years are as follows:

Subscribers' Trouble Reports

Year	Number of trouble reports	Average stations	Trouble reports per 100 stations
1926	149,539	199,147	75.09
1927	169,495	210,841	80.39
1928	162,804	223,778	72.75
1929	169,854	237,905	71.39
1930	231,367	247,600	93.44
1931	198,097	250,125	79.20

These reports are taken from nine of the Company's larger exchanges, as are also the figures given on Crowell's Exhibit G. F. C. No. 3.

And further affiant sayeth not.

Cyrus G. Hill.

Subscribed and sworn to before me this 14th day of September, 1932. My commission expires Aug. 19, 1934. Bertha D. Moritz, Notary Public, Dane County, Wisconsin. (Seal.)

[fol. 437] EXHIBIT C. G. H. No. 1

Interest During Construction

Interest During Construction.—Rate used by New York Telephone Company, New York State outside New York City, 3.86%; rate used by New York Telephone Company, State of New Jersey, 3.83%.

Appraisal as of April 30, 1924, State of New York, outside City of New York.

"The basis on which the Company has been regarded as financing its work during the years needed for the reproduction of the property has been:

1. At the beginning of each year funds to be expended for construction purposes during such year would be available.

2. Interest on such yearly amounts would be charged at rate of 6% per annum.

3. Interest on balances in banks awaiting withdrawal for such construction purposes would be credited at rate of 2% per annum."

Construction Periods, in Months, as Shown by Bell Telephone Companies' Appraisals

Account	New York Telephone Co.	
	New York City	New York State elsewhere
Exchange Right of Way	.....	.....
Land	21.40	16.70
Buildings	10.80	6.90
Central Office Telephone Equipment	7.85	5.30
Other Equipment of Central Office	.....	.....
Station Apparatus	.....	.....
Station Installations	.....	.....
Interior Block Wires	.....	.....
Private Branch Exchanges	.....	.....
Booths and Special Fittings	.....	.....
Exchange Pole Lines	3.50	3.50
" Aerial Cable	1.50	.....
" " Wire	.....	.....
" Underground Conduit—Main	7.00	5.58
" " " —Subsidiary	3.50	3.75
" " Cable—Main	3.50	3.75
" " " —Subsidiary	1.50	2.75

[fol. 438] In United States District Court

[Title omitted]

Affidavit of George W. Cummings

State of Illinois,
County of Cook, ss:

George W. Cummings, being first duly sworn, on oath deposes and says that:

My name is George W. Cummings. I reside in Evanston, Illinois. I am a telephone engineer in the employ of J. G. Wray and Company, Consulting Engineers, and am the same George W. Cummings who has prepared and submitted to this Honorable Court on behalf of the Public Service Commission of Wisconsin an affidavit in respect to Western Electric prices to associated telephone companies in the Bell System, including the Wisconsin Telephone Company.

I have read the affidavit of E. V. Cox in the instant case in respect to price trends, have examined Exhibits A, B, C [fol. 439] and D attached thereto, and have compared the data in said exhibits with the corresponding data in my previous affidavit. While the figures in said exhibits differ to some extent from those used in my previous affidavit which, as stated, were computed from the exhibits submit-

ted by the Illinois Bell Telephone Company in the Chicago case; when they are adjusted to the same base (December 31, 1926) the differences are not great enough to affect the conclusions drawn in my previous affidavit.

The fact that there are, in some instances, fairly substantial differences between the trends submitted by Mr. Cox as representing the experience of the Bell System as a whole and those submitted by the Illinois Bell Telephone Company as representing its experience in Chicago indicates, in my opinion, that the differences in trends based on the specific purchases of an individual company are not negligible as stated on page 5 of the Cox affidavit. Studies made under my direction and supervision in other cases have shown that the purchases made by individual telephone companies in the Bell System differ substantially in the respective proportions of the various items purchased from the proportions of those same items purchased by the System as a whole; and since the price trends of the individual items are necessarily different, it follows that index numbers developed from the experience of the Bell System as a whole cannot properly be used in appraising the property of an individual company unless it is shown that the proportions found in the purchases of that company during each year covered by the appraisal are in substantial agreement with those of the System as a whole. On page six of the affidavit submitted by George F. Crowell in respect to the purported appraisal made by him, he states that he has used for that purpose the material price indices shown in the said exhibits of Mr. Cox, and for the reasons stated, it is my opinion, based upon an experience of many years in [fol. 440] the making and use of index numbers, that the use of such general indices cannot result in a reasonably accurate appraisal.

George W. Cummings.

Subscribed and sworn to before me this 14th day of September, 1932. My commission expires May 22, 1936. Joy E. Murphy, Notary Public, Cook County, Illinois. (Seal.)

[fol. 441] Service of the within affidavits admitted this 16 day of September, 1932.

Edwin S. Mack, F. S., Frederick Sammond, Solicitors for Complainant.

[fol. 442] In United States District Court for the Western District of Wisconsin

In Equity. No. 2118

Wisconsin Telephone Company, a Wisconsin Corporation, Complainant,

vs.

Public Service Commission of Wisconsin, Theodore Kronshage, Jr., et al., Defendants

Journal Entry—Sept. 21, 1932

"2118. Eq. Wisconsin Telephone Company vs. Public Service Commission, et al.

Hearing on application for interlocutory injunction.

Appearances: For Plaintiff, Mr. Mack and Mr. Sammond; for Defendants, Mr. Reis and Mr. Sam Bryan.

Arguments by Mr. Mack for plaintiff and Mr. Reis for defendant heard by the Court.

Court grants injunction. Bond set at $1,000,000 without security. The Commission has permission, if there appears at any time to be a change in the Company's affairs, to apply to the Court for security upon that bond. Form of order and bond is to be submitted to the defendants' attorneys, and upon their approval to be sent to Judge Geiger. Exceptions, if any, are to be filed in writing, and the Clerk is authorized to enter an order allowing the exceptions upon the filing of same.

It is Ordered that the temporary restraining order continues in force until the bond can be given and the injunction actually issued."

[fol. 443] [File endorsement omitted.]

IN UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WISCONSIN

In Equity. No. 2118

WISCONSIN TELEPHONE COMPANY, a Wisconsin Corporation, Complainant,

vs.

PUBLIC SERVICE COMMISSION OF WISCONSIN, THEODORE KRONSHAGE, JR., Individually and as a Commissioner of said Public Service Commission of Wisconsin; A. R. McDonald, Individually and as a Commissioner of said Public Service Commission of Wisconsin; David E. Lilienthal, Individually and as a Commissioner of said Public Service Commission of Wisconsin; William M. Dinneen, Individually and as Secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, Individually and as the Attorney General of Wisconsin, Defendants

DECREE FOR INTERLOCUTORY INJUNCTION—Filed Oct. 18, 1932

This cause came on to be heard on this 21st day of September, 1932, before this court duly convened in accordance with the provisions of the statutes applicable thereto upon the application of the complainant for an interlocutory injunction and upon the verified bill of complaint herein and the verified answer thereto and the affidavits filed herein by the complainant and defendants, respectively, and the complainant appearing by Edwin S. Mack and Frederic Sammond, its solicitors, and the defendants appearing by John W. Reynolds, Attorney General, Samuel Bryan, Assistant Attorney General, and Alvin C. Reis, Special Counsel, their solicitors, and said motion having been argued by counsel and the court finding that an interlocutory injunction should issue because the rates for telephone service prescribed by the order of the defendant Public Service Commission dated June 30, 1932, described in the complaint

and hereinafter referred to, would result in the confiscation of the property of said complainant devoted to telephone service and that the compulsion of the maintenance [fol. 444] of said rates would deprive the complainant of property without compensation and without due process of law, in violation of the Constitution of the United States, and that irreparable injury to complainant will result unless an interlocutory injunction issue as prayed by the complainant,

Now, it is hereby ordered and decreed that the application of the complainant for an interlocutory injunction be and the same hereby is granted and that an interlocutory injunction issue from this court enjoining and restraining severally the defendants Public Service Commission of Wisconsin, Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin, A. R. McDonald, individually and as a Commissioner of said Public Service Commission of Wisconsin, David E. Lilienthal, individually and as a Commissioner of said Public Service Commission of Wisconsin, William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, and their clerks, servants and attorneys, and all persons acting under them or by their direction or authority and all other persons, until the final hearing and determination of this suit, from attempting to compel the complainant, its officers, agents or employes, to observe or put in force the rates for telephone service prescribed by the order of the defendant Public Service Commission of Wisconsin designated "Opinion and Order decided June 30, 1932," and further designated "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company", which proceeding bears the number 2-U-35, or to comply with said order, and also enjoining and restraining severally the defendants Public Service Commission of Wisconsin, Theodore Kronshage, Jr., individually and as a Commissioner of said Public Service Commission of Wisconsin, A. R. McDonald, individually [fol. 445] and as a Commissioner of said Public Service Commission of Wisconsin, David E. Lilienthal, individually and as a Commissioner of said Public Service Commission

of Wisconsin, William M. Dinneen, individually and as secretary of said Public Service Commission of Wisconsin, and John W. Reynolds, individually and as the Attorney General of Wisconsin, and their clerks, servants and attorneys, and all persons acting under them or by their direction or authority, and all other persons, until the final hearing and determination of this suit, from taking any steps or proceeding against the complainant, its officers, agents or employes, to enforce any penalties or other remedies for disregarding the rates prescribed by said order or for failure in any other respect to comply with said order.

Said writ of injunction shall issue upon condition that the complainant shall enter into its bond or undertaking in the amount of One Million Dollars ($1,000,000) without surety, which bond shall be approved by one of the judges of this court, and be conditioned upon the payment of such costs and damages as may be incurred or suffered by any party who may have been wrongfully enjoined or restrained by the temporary restraining order entered herein July 30, 1932, or by the said writ of interlocutory injunction; and further conditioned so that in the event that it be finally adjudicated that said interlocutory injunction should not have been granted or if it be finally decreed herein that the said order of said Public Service Commission of Wisconsin was lawful and that the schedule of rates thereby ordered to be placed in effect was lawful and should have been allowed, the complainant shall refund to its several subscribers any sums paid by said subscribers in excess of the sums chargeable to them on and after August 5, 1932 according to the provisions of said order of said Public Service Commission of Wisconsin, which refund shall be in cash or by credit upon bills of such subscribers, and with provision that if refund is by credit, [fols. 446 & 446½] such credit shall begin with the first monthly bill thereafter, the credit to be as great as said monthly bill permits, and so for each succeeding monthly bill, if any, until said credit is completely absorbed, with the addition of such amount of interest, if any, on such refunds as may be decreed by this court, reserving to this court the power to determine whether or not, in the event of liability for such refunds, any interest shall be payable thereon, and, if so, in what amount.

Permission is hereby granted to the defendant Public Service Commission of Wisconsin to apply to this court for security upon said bond or undertaking if and in event that there appears at any time to be a change from the present condition in the complainant's financial affairs, or for any other reason it is necessary in the interests of the telephone subscribers affected.

It is further ordered and decreed that upon filing the bond or undertaking hereinbefore provided for, the bond or undertaking for temporary restraining order, signed by the complainant as principal and the National Surety Company as surety, filed in this matter on July 30, 1932, shall be and hereby is decreed to be discharged.

It is further ordered and decreed that the restraining order heretofore entered in this suit dated the 30th day of July, 1932, continue and remain in full force and effect until the issue and service of the writ of interlocutory injunction herein ordered.

George T. Page, Circuit Judge. F. A. Geiger, District Judge. Louis Fitz Henry, District Judge. (L. S.)

[fols. 447-449½] Bond on injunction for -1,000,000 approved and filed October 18, 1932, omitted in printing.

[fol. 450] [File endorsement omitted.]

IN UNITED STATES DISTRICT COURT

[Title omitted]

EXCEPTIONS BY DEFENDANTS—Filed Oct. 21, 1932

Defendants except to the entry herein of the decree for an interlocutory injunction, dated as of September 21, 1932, filed and entered October 18, 1932, and to the issuance of the writ of injunction pursuant thereto:

1. Because said decree does not find any facts nor state any legal conclusions which show confiscation.

2. Because the granting of said interlocutory injunction was an abuse of discretion and an arbitrary act.

3. Because said decree does not reserve to the Public Service Commission of Wisconsin any power to make the rate reduction, herein enjoined, by way of a permanent order after the completion of its investigation and after the temporary order, herein enjoined, shall have expired by its own terms on July 31, 1933.

[fol. 451] 4. Because the decree holds that the rates prescribed by the order of defendant Public Service Commission, dated June 30, 1932, would result in confiscation of complainant's property.

5. Because the decree provides, as a condition of the bond, that it shall be held both that the order of the Public Service Commission was lawful and that the schedule of rates thereby prescribed, was lawful and should have been allowed.

Public Service Commission of Wisconsin. Theodore Kronshage, Jr., A. R. McDonald, David E. Lilienthal, Commissioners; John W. Reynolds, Attorney General of Wisconsin, by John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Address: State Capitol, Madison, Wisconsin.
Dated October 21, 1932.

The foregoing exceptions in writing are hereby allowed in obedience to order dated September 21, 1932.

H. C. Hale, Clerk United States District Court, Western District of Wisconsin.

Madison, Wisconsin, October 21, 1932.

[fol. 452] In United States District Court

[Title omitted]

Petition for Appeal—Filed October 21, 1932, 11:00 a. m.

The defendants, by their solicitors, John W. Reynolds, Attorney General of Wisconsin, Samuel Bryan, Assistant Attorney General of Wisconsin, and Alvin C. Reis, Special Counsel, feeling themselves aggrieved by the decree of the

above named court against them, dated as of September 21, 1932, filed and entered October 18, 1932, granting complainant's application for an interlocutory injunction enjoining and restraining defendants, until the final hearing and determination of this suit, from attempting to compel complainant to observe or put in force the rates for telephone service prescribed by the order of the defendant Public Service Commission of Wisconsin designated "Opinion and Order Decided June 30, 1932," and further designated "In the Matter of the State-Wide Investigation on the Commission's Own Motion of the Rates, Rules, Services, Practices and Activities of the Wisconsin Telephone Company," or to comply with said order, and also enjoining and re- [fol. 453] straining said defendants, until the final hearing and determination of this suit, from taking any steps or proceedings against complainant to enforce any penalties or other remedies for disregarding the rates prescribed by said order or for failure in any other respect to comply with said order, do hereby appeal from said decree to the Supreme Court of the United States, for the reasons specified in the assignment of errors, which is filed herewith, and pray that this appeal may be allowed, and that a transcript of the record, proceedings and papers upon which said decree was made, duly authenticated, be sent to the Supreme Court of the United States, under the rules of said court in such cases made and provided.

Pursuant to Rule 12 of the Supreme Court of the United States, as amended May 31, 1932, effective September 1, 1932, there is presented herewith a separate typewritten statement particularly disclosing the basis upon which it is contended that the Supreme Court of the United States has jurisdiction upon appeal to review the decree in question.

In further pursuance of said Rule 12, as so amended, there is included in the statement to the present statutory court "a showing of the matters in which it is claimed that the court has abused its discretion in granting * * * the interlocutory injunction."

Dated October 21, 1932.

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Address: State Capitol, Madison, Wisconsin.

[fol. 454] [File endorsement omitted]

IN UNITED STATES DISTRICT COURT

[Title omitted]

ASSIGNMENT OF ERRORS—Filed Oct. 21, 1932

Defendants, in connection with their petition for appeal herein, present and file the following assignment of errors upon which they will rely in their prosecution of the appeal in said cause from the decree for an interlocutory injunction, dated as of September 21, 1932, filed and entered in this court on October 18, 1932:

1. The court erred in not finding any facts or stating any legal conclusions which show confiscation.

2. The court erred by abusing its discretion and arbitrarily granting the interlocutory injunction.

3. The court erred in not reserving to the defendant Public Service Commission of Wisconsin any power to make the rate reduction, herein enjoined, by way of a permanent order after the completion of its investigation and after the temporary order, herein enjoined, shall have expired by its own terms on July 31, 1933.

4. The court erred in holding that the rates prescribed [fols. 455 & 455½] by the order of defendant Public Service Commission, dated June 30, 1932, would result in confiscation of complainant's property.

5. The court erred in granting the interlocutory injunction enjoining defendants from attempting to compel complainant to observe or put in force the rates for telephone service prescribed by the order of the Public Service Commission, dated June 30, 1932, or to comply with said order, and also enjoining said defendants from taking any steps or proceedings to enforce said order.

Wherefore defendants pray that the decree for an interlocutory injunction may be reversed and for such other and further relief as to the court may seem just and proper.

Dated October 21, 1932.

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Address: State Capitol, Madison, Wisconsin.

[fol. 456] IN UNITED STATES DISTRICT COURT

[Title omitted]

ORDER ALLOWING APPEAL—Filed October 24, 1932, 10:00 a. m.

The defendants in the above entitled action, having filed their petition for an appeal herein and therewith their assignment of errors, together with the "Statement as to Jurisdiction of the Supreme Court of the United States", pursuant to Rule 12 of said court, as amended May 31, 1932, effective September 1, 1932,

Now, on motion of John W. Reynolds, Attorney General of Wisconsin, Samuel Bryan, Assistant Attorney General of Wisconsin, and Alvin C. Reis, Special Counsel, solicitors for defendants,

It is ordered that the appeal of the said defendants from the decree for an interlocutory injunction, dated as of September 21, 1932, filed and entered herein on October 18, 1932, be and the same is hereby allowed as prayed for, the [fol. 457] amount of the appeal bond being hereby fixed at the sum of one thousand ($1,000.00) Dollars, with surety to be approved by the court or the judge thereof.

Dated this 21st day of October, 1932.

—— ——, Circuit Judge. F. A. Geiger, District Judge. Louis Fitz Henry, District Judge.

[fol. 458] IN UNITED STATES DISTRICT COURT

[Title omitted]

ACKNOWLEDGMENT OF SERVICE OF EXCEPTIONS BY DEFENDANTS—Filed October 25, 1932, 9:00 A. M.

Service acknowledged this 24th day of October, 1932, of copy of exceptions by defendants to entry of decree for interlocutory injunction and to issuance of writ of injunction.

Edwin S. Mack, Frederick Sammond, Solicitors for Complainant.

[fols. 459-463] Citation, in usual form, showing service on Edwin S. Mack et al., filed October 25, 1932, omitted in printing.

[fols. 464 & 465] Bond on appeal for $1,000.00, approved and filed October 28, 1932, omitted in printing.

[fol. 466] [File endorsement omitted]

IN UNITED STATES DISTRICT COURT

[Title omitted]

STIPULATION AS TO TRANSCRIPT OF RECORD—Filed Nov. 14, 1932

It is hereby stipulated and agreed by and between the solicitors for the respective parties in the above entitled cause that the transcript of record to be filed in the Supreme Court of the United States, pursuant to the appeal heretofore allowed herein, shall include the following:

1. Bill of complaint, together with exhibits A, B and C attached thereto, filed July 28, 1932.

1a. Chancery subpœna and marshal's return, filed July 29, 1932.

2. Application for interlocutory injunction and temporary restraining order, filed July 28, 1932.

3. Order to show cause relative to restraining order, filed July 29, 1932.

4. Affidavits filed July 28, 1932, on behalf of complainant on application for temporary restraining order.

5. Temporary restraining order entered July 30, 1932.

[fol. 467] 6. Undertaking for temporary restraining order in the sum of One Hundred Thousand Dollars, filed July 30, 1932.

7. Statutory five day notice, dated August 5, 1932, served on defendants and Governor and Attorney General of the State of Wisconsin, of hearing of application for interlocutory injunction.

8. Verified answer of defendants, filed August 26, 1932, together with exhibit X attached thereto.

9. Statutory five day notice dated August 30, 1932, served on defendants and Governor and Attorney General of the State of Wisconsin, of adjourned hearing of application for interlocutory injunction.

10. Affidavits and notice thereof filed September 21, 1932, on behalf of complainant on application for inter-

locutory injunction, together with exhibits attached thereto.

11. Affidavits filed September 7, 1932, on behalf of defendants in opposition to application for interlocutory injunction.

12. Reply affidavits and notice thereof filed September 21, 1932, on behalf of complainant on application for interlocutory injunction, together with exhibits attached thereto.

13. Reply affidavits filed September 16, 1932, on behalf of defendants in opposition to application for interlocutory injunction.

14. Minute in the clerk's journal of September 21, 1932, which is as follows:

"2118. Eq. Wisconsin Telephone Company vs. Public Service Commission et al.

Hearing on application for interlocutory injunction.

Appearances: For Plaintiff, Mr. Mack and Mr. Sammond; for defendants, Mr. Reis and Mr. Sam Bryan.

Arguments by Mr. Mack for plaintiff and Mr. Reis for defendant heard by the Court.

Court grants injunction. Bond set at $1,000,000 without security. The Commission has permission, if there appears at any time to be a change in the Company's affairs, to apply to the Court for security upon that bond. Form of order and bond is to be submitted to the defendants' attorneys, and upon their approval to be sent to Judge Geiger. Exceptions, if any, are to be filed in writing, and the Clerk is authorized to enter an order allowing the exceptions upon the filing of same.

[fol. 468] It is Ordered that the temporary restraining order continues in force until the bond can be given and the injunction actually issued."

15. Decree for interlocutory injunction, entered and filed October 18, 1932.

16. Bond of One Million Dollars, filed October 18, 1932, on interlocutory injunction.

17. Exceptions by defendants to decree and writ, filed October 21, 1932, and order allowing said exceptions.

18. Petition for appeal, filed October 21, 1932.

19. Assignment of errors, filed October 21, 1932.

20. Statement as to jurisdiction of the Supreme Court of the United States including "a showing of the matters in which it is claimed that the court has abused its discretion in granting * * * the interlocutory injunction", filed October 21, 1932.

21. Order allowing appeal, filed October 24, 1932.

22. Acknowledgment of service of Exceptions by Defendants, filed October 25, 1932.

23. Citation on appeal, with admission of service, filed October 25, 1932.

24. Service of appeal papers and directing attention to the provisions of paragraph 3 of Rule 12, filed October 25, 1932.

25. Appeal bond, and order approving said bond, filed October 28, 1932.

26. Motion to affirm and statement of appellee (complainant) in reply to statement of appellants (defendants) and in support of motion to affirm, with admission of service, filed November 7, 1932.

27. Stipulation as to transcript of record.

Edwin S. Mack, Frederic Sammond, Solicitors for Complainant. John W. Reynolds, L., Attorney [fols. 469 & 469½] General of Wisconsin; Samuel Bryan, L., Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Solicitors for Defendants.

Dated November 12, 1932.

[fol. 470] Clerk's certificate to foregoing transcript omitted in printing.

[fols. 471 & 471½] SUPREME COURT OF THE UNITED STATES

STATEMENT OF POINTS TO BE RELIED UPON—Filed Nov. 26, 1932

Come now the appellants and adopt their assignment of errors as their statement of the points to be relied upon.

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Counsel for Appellants.

Dated November 23, 1932.

[fols. 472 & 472½] SUPREME COURT OF THE UNITED STATES

STIPULATION AS TO PRINTING OF RECORD—Filed Nov. 26, 1932

It is hereby stipulated between the appellants, by their counsel, and the appellee, by its counsel, that the whole of the record, as filed, is necessary for the consideration of the case, and shall be printed.

Dated November 23, 1932.

John W. Reynolds, Attorney General of Wisconsin; Samuel Bryan, Assistant Attorney General of Wisconsin; Alvin C. Reis, Special Counsel, Counsel for Appellants. Edwin S. Mack, Arthur W. Fairchild, J. Gilbert Hardgrove, Counsel for Appellee.

[fols. 473 & 473½] SUPREME COURT OF THE UNITED STATES

Due Service admitted this 24th day of November, 1932, of Statement by Appellants of Points to be Relied Upon.

Edwin S. Mack, Arthur W. Fairchild, J. Gilbert Hardgrove, Counsel for Appellee.

[fol. 474] [File endorsement omitted.]

Endorsed on cover: File No. 37,214. W. Wisconsin D. C. U. S. Term No. 517. Public Service Commission of Wisconsin, Theodore Kronshage, Jr., Individually and as a Commissioner of said Public Service Commission of Wisconsin, et al., etc., appellants, vs. Wisconsin Telephone Company. Filed November 21, 1932. File No. 37,214.